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Current Notes

Vol. 9 No. 4

May 1989

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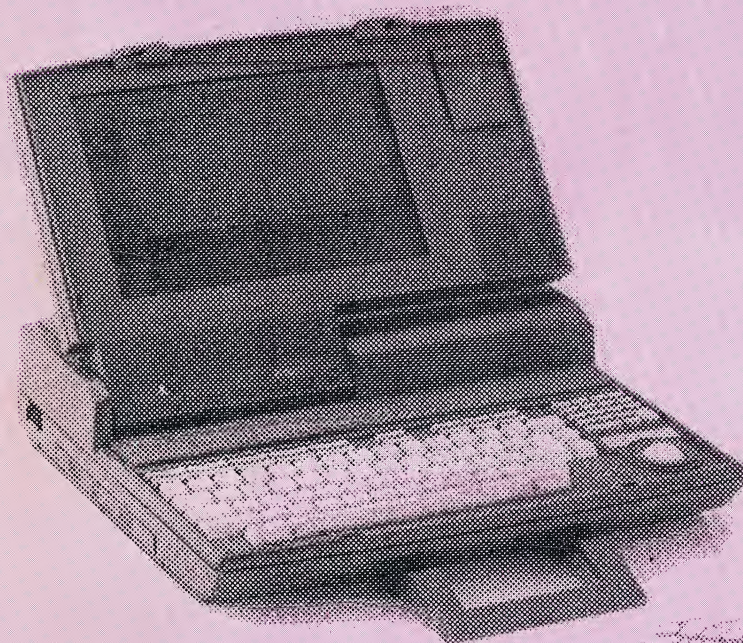
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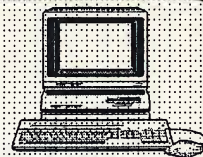
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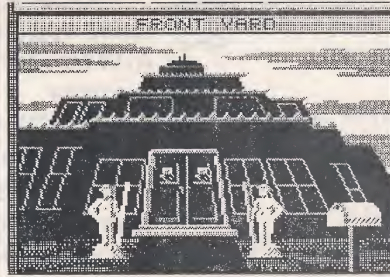
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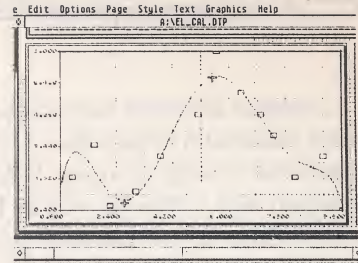
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TIME TO RENEW?

Check your mailing label. If you see an **8905** (5th month of 1989, i.e. May!) on the first line, then this is your **last issue** of CN. Get your renewal in right away to be sure you do not miss any issues. (If you see an **8906** or **8907**, your subscription will soon be ending. Please try and renew early—it is a big help to us.

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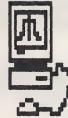
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ATARI DESKTOP PUBLISHING

Current Notes is produced on an Atari **Mega ST4** with an Atari **SLM804 Laser Printer** using Time-works Desktop **Publisher ST**. Some artwork is scanned in using the **Navarone Scanner** and some ads are produced with **Calamus** or **PageStream**.



From the Editor's Desk:



Another Comdex has come and gone. Atari, once more, showed a whole slew of new products. I did not attend this Spring Comdex. In fact, the last Comdex I attended was in the fall, not of 1988, but of 1987. There were a lot of new Atari product announcements at that Comdex as well. Just to jog your memory, here are a few of the products that were highlighted in Atari's Comdex newsletter back in late 1987:

"New technology is showcased by ABAQ, an ultra-high-performance workstation with blazing speed and dazzling graphics. ABAQ, based on a sophisticated transputer chip, runs more than 10 times faster than the PC/AT and more than 4 times faster than the 68020 with math coprocessor.

"Atari unveiled its new CD player capable of reading CD-ROM disks and playing all commercially available CD music disks ... will retail for only \$599.

"Atari's connectivity system for the ST, Mega, and PC computers is compatible with the NETBIOS standard used by IBM and Novell. It communicates data at 1 megabits-per-second to Atari computers and to PC compatibles and over 250K bits-per second over Appletalk over a second independent channel.

"At Atari, desktop publishing is represented by both the Atari SLM804 Laser Printer and Deskset by G.O. Graphics. G.O. Graphics is currently porting this Compugraphic compatible program for marketing by Atari.

"The top two word processors from the PC world are now compatible with the ST and Mega. Word Perfect is displaying, the now shipping Word Perfect Microsoft Write is also on display. Write is a direct port of Microsoft Word 1.05 for the Macintosh.

"Atari expanded its PC-compatible offerings by adding two new models available in several configurations. The PC2 (PC/XT compatible) comes with EGA graphics, high clock speeds, and 5 XT style slots. The PC4 (PC/AT compatible) features EGA and VGA graphics, an even higher clock speed and AT style slots. Both sport low price tags.."

I was certainly impressed with the incredible range of Atari offerings. Let me quote from my editorial in the December, 1987 issue of Current Notes:

"Many Atari observers do not believe Atari will ship these products when they say they will. Others don't believe they will ever ship these products. I do. I think all of the announced products will arrive-sometime (granted, Atari's announced shipping dates tend to be overly optimistic)."

To be perfectly truthful, I didn't think the product delay would be this long. The ABAQ, renamed the ATW for Atari Workstation, is closer, but not commonly available.

The CD-ROM drive is, once more, announced. You know, one of the first products available on CD-ROM was Groliers Encyclopedia--in fact it was first demonstrated on an Atari. At the time of Atari's Fall '87 announcement, I had a child in high school, one in middle school, and two in elementary school. I was ready and anxious to get that CD ROM drive just for that encyclopedia. Now, after two years of delay, I have two kids in high school (one almost finished), one in middle school, and one in elementary school. Two weeks ago I had to finally give in to my kids and buy a hard copy encyclopedia. I didn't realize we were the ONLY family in town not to have one! But I did realize that if I continued to wait for Atari, my kids might be all grown up and gone.

Atari connectivity? I have several Atari's. In fact, MOST of the CN readers who fill out the computer survey on their subscription or renewal forms have several Atari's. Many have both 8-bit and 16-bit. Many have several STs. Can we connect them yet? No.

Current Notes is an example of Atari desktop publishing. But G.O. Graphics is not in the picture. Indeed, the primary reason for success in the desktop publishing arena comes from third parties, not from anything Atari has done.

Anyone who reads Current Notes has been kept abreast of the Atari--Word Perfect connection. Atari's role in the matter is not one we can be proud of. Microsoft Write hasn't gone anywhere.

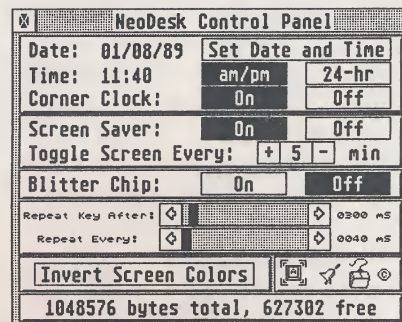
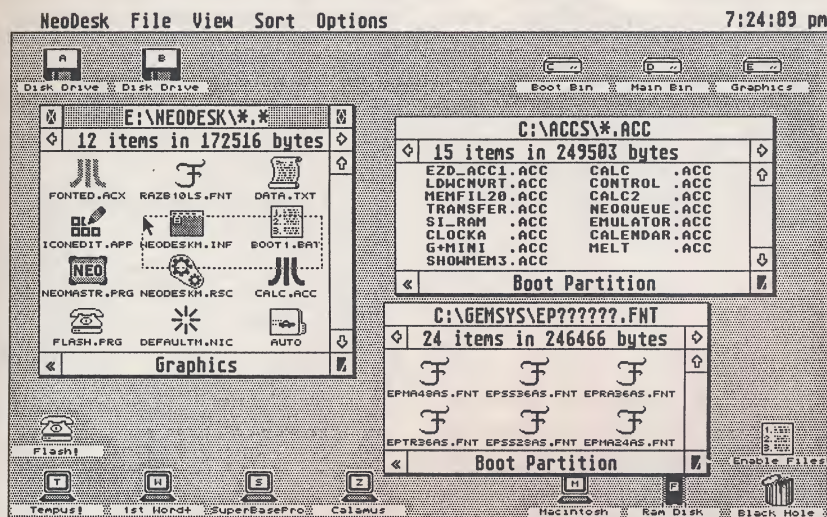
Atari is still trying to jump on the PC bandwagon. Back in 1987 they introduced the PC1, PC2, and PC4. They were also showing a PC5 (386 clone). This year, at least, it's only one machine, the PC4. Why someone would buy an Atari PC clone over all the other low-cost clones out on the market escapes me. Because of my professional duties, I wouldn't mind having a PC capability in my home. However, pc-ditto II, I think, will do the job just fine.

There is a lot of excitement over the new Atari products and announcements. Just like there was back in 1987. This time, however, I'll remain a little more skeptical. It's important that Atari produce and market new (and hopefully advanced) products. It is important for Atari and it is important for us Atari owners. But the proof of the pudding is in the eating. Atari says these new products will be available in 90 days. OK, the clock is ticking. Let's see what we have to talk about this fall.

- - Joe Waters

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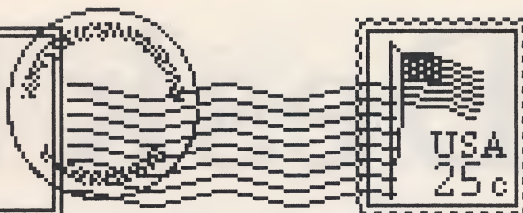
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Letters to the Editor



Mac IIcx for College

Dear Editor,

When I received my renewal notice late last month, I had a bigger decision to make than usual. You see this fall I will be transferring to Southwestern University to major in computer science and mathematics. Since their labs contain mostly Mac IIs, I have decided that I must leave the ST and finally buy a Mac. This decision has been a long time in coming, but now it seems to be the only logical choice. When I leave for Southwestern this fall, I will leave my 520ST behind and buy a Macintosh IIcx. I will keep the ST because I do not believe I can sell it for what it is worth and because I still like it.

I have had an Atari since I was eight (1978). My first Atari computer was a 2600 that cost almost \$200 and provided years of fun, but I began to want to do more than run cartridges. When I was eleven, therefore, I bought an 800 with a 410 cassette recorder. Soon, I was learning Atari BASIC and discovering what this machine could really do. The graphics were my favorite part, and I did quite a lot of programs using graphics. During the next four years, my system grew to include a disk drive, modem, color monitor, and much more.

It was at this time I got my first job. I went to work for one of the first computer stores in Texas to carry the ST. As I worked with it, I began to want it. So I sold my old 800, and bought a color 520 ST with two drives. For the next couple of years I was engrossed in the ST. I considered it the best in its class. During this time, I worked at Electric Works Corp. (EWC) a software company that writes log and billing programs to radio stations. While at EWC, I worked with IBMs and began to discover that there was more than the Atari way to do something. I also did some work in the Information Services department of the Texas College of Osteopathic Medicine. Here I worked with the Mac and began to understand why it was so

popular. However, none of these experiences dimmed my interest in the ST.

When it came time to get a new computer for college, Atari unfortunately had no really new machine to offer. The Mega is simply an ST with more memory. I realized that I would have to go to another company for a new machine. Mac, my second favorite machine, was my only choice. While working with other machines, I grew to appreciate the desktop metaphor. I think the Mac's desktop might be better than the ST, but this is because more time went into its development. I will still follow Atari and play with the ST, and maybe someday Atari will again make a computer I will want. I will also continue my subscription to Current Notes for two reasons. One, I want to be kept up to date on Atari. Two, CN has about the best writing I have seen in any computer periodical. I guess one could say that now I will like other machines but still love Atari and its computers. Thank you Atari for all the good times!

Joey King
Aledo, Texas

Kudos for CN PD

Current Notes:

I recently ordered and received two disks from your ST Library and would like to make a few comments about them.

The thing I noticed immediately when opening the package was the professional appearance of the disk labels. After further examining them, I was very impressed and informed. They tell you exactly what's on the disk and what the program does. This is a refreshing change from the PD disks that I've ordered from other sources. You usually don't know what half of the programs do on their disks and they don't include doc files on the disk to let you know.

The second thing I noticed was that the programs worked. I've purchased some other PD disks that either didn't

work or were so bug ridden that they weren't worth the trouble to try to use. I ordered disk #304 and disk #312 and they are both very well done.

Another nice feature was the fact that the programs were ready to run and not in arced format like most other disks that I've ordered. Sure, an arced disk can hold more programs, but they are a real pain to unarc and usually contain some programs that aren't worth unarc'ing anyway.

Thanks,
Bob Zeis
Pittsburgh, PA

High-Tech Delivers

Dear Joe Waters,

In regards to the reader feedback in the March issue, pertaining to High-Tech Expressions, I will offer some help. I also sent for a "Special offer" from High-Tech Expressions in Florida. I sent my check on December 16th and by March, hadn't heard anything. I wrote a letter the first week of March fearing the company was either out of business or ignoring its customers. Well, yesterday I received the disk I ordered. It does pay to write companies when you are not receiving what you ordered. Maybe they lost my order, I don't know, but I now have the special graphics disk for Awardware.

Second, on the back of the box for Awardware, it shows the Okimate-10 is only compatible for the Commodore, but if you'll notice on the Print-Power box, it shows the Okimate-10 is only for the Commodore, too. Yet upon booting PrintPower, the Okimate-10 is included on the printer list, but not with Awardware. Apparently, with the Awardware seals taking so much room, there was not enough space for added printer drivers. These pieces of software from High-Tech Expressions are worth their weight in gold to me. I am very happy I purchased both pieces and would suggest everyone who uses PrintShop to buy them also and compare. With PrintPower and Awardware you get it right the first time! Don't take my word for it, try it yourself.

Thank You,
Phyllis Margarites
Burbank, IL

P.S. I love Current Notes!



Some Spellers are Better than Others.

Before she won her regional spelling bee, Margaret Hollingsworth pored over seven different dictionaries for more than three hundred hours.

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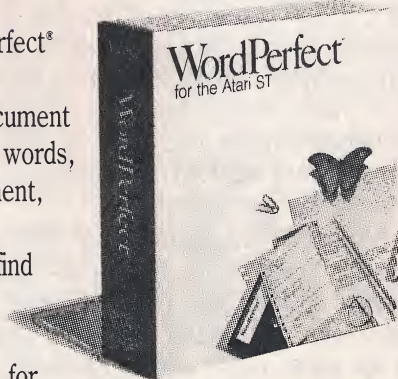
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ST UPDATE by Frank Sommers

Euphoria, Atari Style At Comdex

Sleeping Beauty

There it was, glowing, radiating appeal, in the center of the McCormick Building in the center of the Atari exhibit, where nobody could miss it. Under glass, not to be touched, but fully operational was "Stacey," the Atari laptop that was the jewel of Atari's extravagant Comdex full court press in Chicago on April 10-13.

As in the past, critics, nay sayers, Atari "flamers" and bashers were there, but for the moment they were all silent and on the sidelines. Euphoria, and not all of it caused by partying, was the watchword among Atari fans. As one dealer had said earlier, "For the Atari community to evidence enthusiasm, they have to be convinced Atari knows where it's going."

Well, the enthusiasm could hardly have been higher with a panoply of new wares buttressing the Atari management's cry of "it's here now or will be in 90 days."

What made it all so impressive? It was not the \$300,000 Atari had paid to show off its wares. Instead, it was the wares themselves. The lineup: the Stacey, an Atari 44 meg removable cartridge hard drive, a hand scanner, new feed and flatbed scanners, the 286 Atari PC-4, an Ethernet system for the ST, the IBM compatible Atari Portfolio laptop, the SX-212 Atari modem, *Calamus Outliner*, the RC-Arrow Chopper, ICD's hard drive backup, the presence of WordPerfect in the Atari booth, and announcements galore.

Announcements about what? Why, about the TT, the new TOS 1.4 ROMS, the Moniterm monitor, *Calamus* in color on the Moniterm Monitor, the CD ROM player, advertising policies, *Desk Set II*, and the new Sales Manager for Atari.

Stacey, A "Laptop Mac?"

Essentially, Stacey is a 1040 ST packaged as a laptop with a super-twist LCD screen, with one meg of memory, but upgradeable to four meg, and configured with one or two floppies, or one floppy and a 30 meg hard drive. The latter configuration will cost \$1,995 and the former with one drive \$1,495. By the end of the week, when the show closes, the new "Sleeping Beauty" will be air freighted to Japan, where it will be sized and measured and stripped naked and used to set up the production line. Yes, it is the only one in captivity at this moment and it will be manufactured in Japan. But Atari reportedly stakes its reputation on having it ready to sell by 15 July. There was also considerable talk that though this version did not have backlighting, the final version would. Dealers were excited. Buyers were eager. One of the reasons was that it had an internal cart slot for the Spectre 128. And thus is the ST "Laptop Mac" born.

Other Exciters

Right behind the Stacey, helping to keep the blood temperature rising, was the Atari removable hard drive and/or backup device. About the size of a CD player, each removable cartridge had a backup capacity of 44 megabytes. Billed as just as fast as a hard drive, the Sys Quest mechanism inside had a SCSI port. The drive will cost \$1,195 and each cartridge will sell for \$150.

Migraph captured the Atari crowd's fancy with its hand-held scanner. At 400 dots per inch resolution, with a 4" scan mouth, it will sell for \$400, but it will be packaged with a new version of Migraph's *Touch Up* which will add \$189 to the retail cost. Along with it, Migraph showed two new scanners, one a

feed machine and the other a flat bed scanner. Both will use Cannon scanner hardware.

What Else? Lots

And who else but WordPerfect was smack dab in the middle of the Atari show, answering questions about WP and being very much a part of the Atari world. Many found it curious but encouraging, since WP Corp. has Atari on "limited support." Still no final word about the date for an upgrade of WP for the ST, but the lone programmer working on the ST at WP Corp has the reputation of doing things right. The revised Diablo laser printer driver that Atari, itself is working on, is still just that, "being worked on."

TimeWorks was there also, but not running *Publisher ST* on a Mega, but *Publish It*, the IBM version of *Publisher ST*, on Atari's PC-4. The Tramiels were touting the PC-4, pointing out that though it was not "without the price" at \$1,895, still it had power, with EGA and VGA cards installed, a 60 meg hard drive, 1 meg of memory and a 3.5 floppy. Again all of this in "90 days." The PC-5, the 386 clone, was nowhere to be seen.

ISD and Nathan Potechin were out marketing, and quite effectively. First they had *Calamus* running on the Moniterm Monitor. They also had dealers whistling at the new *Calamus Outliner* that flows text just about anywhere on the page you want it, upside down, inside out and around corners. They announced that they were ready with *Calamus* in color as soon as Moniterm was ready with their color driver, purportedly by the end of the summer.

As all this was going on, Atari was saying it had more chips than it needed and product would now flow. They showed off the SK-212

modem and said there were 17,000 of them ready for sale at \$65 each. Attracting even more attention was David Stein's *RC-Arrow Chopper*, the little black box that permits you to simulate a radio-controlled glider, and gas-powered chopper and airplane flight on your ST. Not without its fans and plaudits, presumably from those who know what it's like to have a hard drive crash, was ICD's tape hard drive backup device.

The TOS 1.4 Mystery

Word had been around for almost two months that the new TOS was bug befouled. Accompanying this was a false rumor that the latest Mega's were being shipped with TOS 1.4 in them. Just a few days before Comdex, an individual in a position to know reported that the reason the TT (referred to variously as the Thirty-Two bit computer, or Enhanced ST, or 68030 machine) had not been put in production and was not ready to sell was because it wouldn't run on the new TOS. But apparently the bug, related to the functioning of the hard drive, had finally been fixed. According to Robin Noonan, Cindy Claveran's replacement, who also works for the new Atari Sales Manager, none other than Sig Hartmann, the new TOS was on its way to developers. Why all the fuss about the new TOS? Well, because in addition to the TT, the new Moniterm monitor would work with the bugged version.

All of this seems born out by Atari's announcement at Comdex that TOS 1.4 was now shipping, was now being installed in the Mega's, and according to Jack, himself, anybody who bought a Mega from now on without the new TOS in it would get a free upgrade. Did this mean that Moniterm's monitor would ship. Yes, apparently in 30 days.

The Wunder Kind

The long-awaited "TT" is out to developers in Germany now, according to word at Comdex. It will be shipped in the U.S. to developers in May. Atari has 250 machines just

for developers. In October it is slated to go on sale. (Remember "90 days" was for things you could see and touch, not for announcements.) It will be a 6 meg machine, with stereo, 256,000 colors, a 1,280 x 960 mono monitor and a 640 x 480 color monitor. Completely compatible with TOS 1.4 (that was part of the problem, remember), it will run on both the TOS and UNIX 5.31 platforms, **if software developers follow the codes** that have already been issued in Germany. Cost? Not announced.

CD ROM Players

Atari claims to its dealers that by the time you read this you will also be able to inspect the CD ROM player for the ST at your dealer. A month later, the dealers should be receiving players in boxes to sell to you for \$599. At present, Atari only has 600 or so, just enough for one each per dealer. But Atari is taking orders, ostensibly, and thus those of us who thought the CD ROM player would not make the scene because of lack of interest and software were apparently wrong. The machine is to be bundled with one laser disk which will contain all of the public domain software currently available for the ST. Not a bad attraction.

A Puzzle No Longer

First there was the Rubik cube. Then the puzzle about the Atari 1040's in Moscow. Then, after the Tramiels arrived, there was the riddle about how many dealers Atari actually had. In the last three years they have been "vaporizing" rather rapidly. The Capitol of the Nation and its surrounds are down to five. So, how many? Well, in 1986 Commodore had approximately 900 dealers, about 200 fewer than our beloved Atari. Now the tables are reversed. Atari has roughly 650 and Commodore almost 900 more than that for a 1,600+ total.

Madison Avenue

The ad furor seems to have taken over Atari Headquarters. How

many of you have seen an Atari ad? Supposedly there were hundreds of Atari ads in the Bay Area of San Francisco last December. Yet, it's hard to find a dealer who saw one. Recently, the marketeers hit the East Coast with a promise of ads for all.

But there was a hooker. The "Business is War" boys had decided that before you qualified to be included in an ad, you had to order stock, and lots of it. In Miami, Chicago, and California a dealer had to order about \$15,000 worth of Atari 1040 ST's and laser printers to qualify. It was 24 1040 ST's to be included in the 1040 promotion ad or two \$3,995 DTP packages to be included in the ad campaign for the Atari DTP with *Ultrascript*. Except for Washington, D.C. There Mike Dindo, the Atari rep, realized that a couple of the dealers were too small to take on that much stock and the number of 1040's was cut to 12. Still, only one of the five dealers, L&Y in Woodbridge, VA (see CN ad) agreed to participate. Thus, those of you who read the Washington Post Business section saw two ads for Atari desktop publishing in April. Not spell binding, unless it was the first ad you had ever seen for the ST, as it was in our case. TV? Apparently not part of the package.

Chicago dealers were more enthusiastic. The Chicago Tribune carried ads. The local TV's, along with CNN, had some. The pitch was pleasing, *This is what the IBM costs... this is what the Mac costs... and this is what the Atari Desktop system costs. And it includes a hard drive, a laser printer, and DTP software. Why do the others cost so much more? Because of this!* (And the scene would shift to a Mac and an IBM logo.)

So Atari could do it. But to create a national image, the majority of dealers seem to think Atari has to "go national."

To top that off, the word at Comdex was that Atari was telling dealers that CNN TV advertising had not paid off and the concentration from now on would be in the print

media. If true, we predict in 12 months the decision will be viewed as a major corporate "misjudgment."

Connectivity?

Most of you will agree that Atari needs a LAN (local area network), as much as it needed *UltraScript*, to crack the DTP/business market. Well, a German developer was noted at Comdex searching for a U.S. distributor for his \$700 ethernet system that would also permit you to be up and running instantly and it's Novell compatible. Grab it, Atari, you only go around once.

It's Fast & It's Coming

pc-ditto II, the IBM emulation that turns your ST into an IBM XT and runs it as fast as an IBM AT, previewed at the 22 April World of Atari at the Disneyland Hotel in Anaheim, CA. Before hand, Bill Teal, President of Avant-Garde Systems, announced he would have a few surprises for the visitors at the booth. "I don't want to give all of our 'tricks' away early, but we should have several nice new things for our audience." Presumably these little niceties involved not having to remove your *pc-Ditto* from the cartridge slot (not the DMA port, as had been erroneously suggested), if you wanted to use Spectre 128 or Imagen's scanner cartridge, or any of the other tools we have come to love that are cartridge packaged. That would suggest a "pass-thru" or open-ended cartridge that would accommodate additional cartridge attachments. Avant Garde (381 Pablo Point Drive, Jacksonville, FL 3225; 904-221-2904) expects to have the cartridges for sale by "mid-May or mid-June." Registered owners of *pc-Ditto* can expect to receive a rebate coupon for \$150 prior to that time. That means you will be getting 50% off the dealer price of \$299.95.

Clockwork

Regular, regular is the only thing you can say about Proco Products (P.O. Box 665, Chepachet, RI 02814)

which has come out with its eighth update for *ProCopy*, the program that backs up just about everything, except possibly the latest game with the latest protection scheme just in via the airmail pouch from Europe. Version 6.1 seems to have ironed out the few quirks in the preceding program, e.g. the 520 FM bug. It copied everything we tried, including the popular addictive Soviet authored arcade game, *Tetris*. The regularity with which Proco Products updates its program is admirable. The only other copy program to attempt this is *ACopy*, a European program and originally a *ProCopy* clone. It is now out with version 1.2L. Also a bear for clawing away protection schemes, *ACopy*, too, offers the comfort of quick backups. It

**pc-ditto II, IBM XT
compatible with IBM AT
speed, will be shipping
by the time you read
this.**

lacks the "analyze" feature of *ProCopy* but gives you a wider variety of formatting choices.

Which Will Win?

Atari is about to start selling the Atari "PortFolio." This IBM-compatible laptop computer is small, weighs about a pound, has a 40 column screen and either 256K or 126K of memory that can be beefed up to 2 meg with RAM cards. "Start" means sometime this summer. The Folio is made by DIP in England.

But is Atari late again? The **Cambridge Z-88** is also less than 2 lbs. and small enough to fit in your briefcase. It has an 80-column supertwist LCD screen and memory expansion up to 3 meg. The Cambridge runs on three AA batteries and gives you 20 hours of computing time per set of batteries. At \$450, the Z-88 is not cheap. A 512K RAM upgrade pushes the price up to \$750. Software, as with the Atari Folio, is all in ROM chip form. These are easily inserted into the machine via a small compartment in the case. The Cambridge is open faced,

whereas the Folio has a clam top cover. The letters of the 40 column Atari should be larger and somewhat easier to read. With an 8086 chip, the Folio will be slightly faster. Cambridge users, however, report that speed is no problem. The Cambridge has an image on the side of the screen to illustrate with dots what your full page looks like. Two different cables permit you to port to either an IBM compatible or to your ST. When will the Cambridge be available? Last month, from Sharp Inc, Box 326, Mechanicsville, VA 23111, (804)-730-9097.

The Mystery Guest

Our man in Taiwan reports a mysterious figure from Atari Land, USA has shown up on the island. Through his tinted glasses people have recognized none other than John Feagans, father of the indomitable *ST Writer*. His secret mission in Taiwan? Silence everywhere. But Atari psychics suspicion that it involves an Xmas threat to Nintendo's domination of the game world. A startling new Atari game machine, if true, will need more than an eye-grabbing leap forward in game technology. How about a multi-million dollar accompanying ad campaign?

Noonan Keeps At It

One of the reasons *ST Writer* was rated by CN authors in last months "mini-reviews" just as often as *WordPerfect* was because of Dr. Bruce Noonan who has been the step-father of this remarkably easy to use PD word processor. His repeated improvements and constant refinements have kept it up there with the best for the ST. Now those of you who have read the May issue of START know he's done it again. Bruce has developed a translator for those of you who get frustrated thinking about moving text from one WP to another. Now, with the Noonan translator, you can move *ST Writer*, *WordPerfect* and *Word Writer* text into or out of any of the three wordprocessors. Thank you, Bruce.

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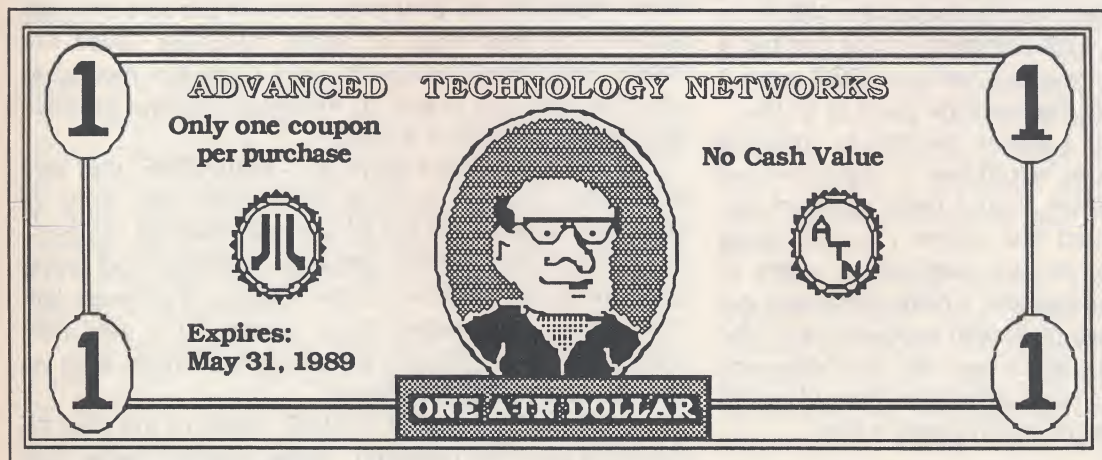
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Is Anything New?

If no news is good news, then May must be a banner month for the Atari 8-bits. Try as I might, I could locate little if anything that I thought would interest the majority of our XE/XL owners. I went to my usual sources, then to other publications, and finally online. There were bits and pieces about obscure products and occasional mentions of new Atari game carts and what's happening with *Diamond OS* (very little) and *GOE* (not much). As for the release of software from any major firm--nothing. As for any new hardware from a company familiar to me--zilch.

It does not surprise me that the well is nearly dry. It has been going dry for at least two years. This time last spring my expectations were on the rise. Merrill Ward was calling me every three days with enthusiastic outpourings about the company's ST-like desktop (*GOE*). Springboard, a company which previously had avoided the Atari market, was planning a release of its popular (albeit, elementary) desktop publishing program, *The Newsroom*. SSI, Infocom, Hi-Tech Expressions, DataSoft, and other major firms still were producing 8-bit titles. I.C.D. had acquired O.S.S., with all of the latter company's superior Atari products. The Atari XE Game System was out and apparently selling well. If it wasn't spring for the 8-bits, it at least looked like it might be summer.

Now, nearly a year later, I realize that it was the XE/XL's Indian summer. After a short burst of good weather, winter has arrived. Virtually all of the major firms have ceased production of new 8-bit titles (thank God for I.C.D.!). The jury is still out on one ST-like interface (*Diamond*), and the court isn't even in session on the other (*GOE*). Whether the XEGS is selling well or not is a mystery to me. In my neck of the woods (upstate New York), Toys 'R Us and some other retailers have pulled the machine from their lines. According to a message posted on Genie, Kay-Bee Toys in many areas of the country also has eliminated the XEGS. In addition, I haven't seen a new cartridge since last fall. It was *Food Fight*, which wouldn't sell an XEGS even if Atari dropped the price of the machine down to \$1.95.

A few months ago, I asked readers to mail me letters listing software they would like to see converted to the XE machines. Since then I have received two replies. When I announced that *Ultima V* would not be available for our 8-bits, no one seemed to notice or care. On a number of occasions, I have requested our readers to submit reviews of certain products (e.g., the XEP80-column adaptor) which we do not have--no reviews. At other times, I have asked for "How I Use My Atari"--type articles--one or two in a year's time.

Most of the big-name publishers saw the handwriting on the wall long before we did and assumed the following:

- × Many 8-bit owners were switching to more sophisticated machines and selling off or retiring their XEs.
- × Others were using their computers as cartridge-based game systems. These were not the hobbyists who read computer magazines, went online, or purchased disk-based programs. Why bother publishing for the new, cartridge-crazy user?
- × Many more already had what they needed in terms of software. All the 80-column word processors, desktop publishers, and *Ultima Vs* in the world wouldn't get them to spend another buck on an 8-bit program.

CURRENT NOTES is not alone in trying to keep a cheery expression on a sad face. ATARI EXPLORER occasionally pays lip service to the 8-bits, but mostly covers the ST. ANALOG is considering reprinting old columns to give readers something to read besides program listings. ANTIC has so few pages (and advertisers) that it looks more like a comic book than a magazine.

The following were the new products mentioned in the April editions of either Antic or Analog:

- *Edit8*, a RAMdisk sector editor, from Logic One;
- *Happy's Math*, a mathematics game, from Bensley Consulting;
- *Oasis BBS 4.2* from Z Innovators and *Carina II* from Carina Software Systems, both bulletin board systems;
- *Escape From Planet X*, a text adventure employing the Covox Voice Master or Voice Master Junior, from Covox, Inc.;
- DataQue Software's *TURBO-816*, mentioned in CN's April issue;
- A disk magazine from a German user group.

No doubt these all are fine products from excellent firms. However, are they products with the sort of broad appeal that help keep an aging computer alive? Are these companies the giants who have the money to advertise and the power to influence retailers to stock their shelves with their items?

In the most recent issue of Z-MAGAZINE, that very fine online source of 8-bit information, the topic of dwindling support for the 8-bits is addressed. According to the author, Antic's software catalogue and online support are the only two major sources of software left. Fortunately, CN readers have access to a very rich, varied, and ever-growing line of public domain titles via the Novatari XL/XE PD Library.

In another section of Z-MAG, some of the new XE cartridge titles are reviewed. These include *Tower Top-*

pler, a graphics adventure/climbing game, which has been receiving favorable notices in many publications, and *Thunder Fox*, a space shoot-'em-up, which has been circulating around Europe under a number of different names for years. I have seen the European version (thanks to CN contributing writer Augusto Rojo). The graphics are quite attractive, but the game play is predictable. Incidentally, Senor Rojo reviewed *Thunder Fox* (a.k.a. *Mirax Force*) in the May 1988 issue (see "The Peruvian Connection").

XE/XL versions of *Desert Fox*, *Mario Bros.*, *Into The Eagle's Nest*, and *Crossbow* apparently are available (somewhere). The last named title and a brand new game, *Crime Busters*, employ the XEGS light gun. After playing *Bug Hunt* and *Barnyard Blaster* for a year, most gun users are ready for a change. Last year an Atari rep told me that XL/XE owners would be able to purchase the gun separately or as part of a package with one of the carts. Has anyone ever seen the guns on sale in such a fashion?

Clearly and sadly, the best is not yet to come as far as the 8-bits are concerned. The XEGS was the last hope for this line. Due to the early start Nintendo got on Atari in recognizing the rebirth of interest in video games and the superiority of Nintendo's graphics and games, this company has 80% of the market. Sega is running second, and Atari's three machines are third. Whether Atari will continue to support all three remains to be seen.

The Atari XE/XL is a great machine, but it is an old machine. Its past is steeped in glory; its present in doubt; its future in hope. A realistic appraisal of its future does not include the possibility of software and hardware support from major firms. The small companies, the semi-professional programmers, the user groups, the online services, and the surviving magazines are the 8-bit's future.

As evidence of your desire to see CURRENT NOTES continue with its support of the XE/XL computers, please submit articles and reviews, please send letters, and please subscribe. (My address: Len Poggiali, CN XE Editor, 225 Mosley Dr, Syracuse, NY 13206.)

More On Happy Math

Bensley Consulting is a small, independent computer consulting firm in Westfield, Illinois. Brothers Brett and Mark Bensley spend their spare time creating computer programs. In the past they have produced an entire series of educational packages for the Apple and IBM computers. Recently, they have practiced their skills on the Atari XE/XLs.

The company's Atari series is called "Happy Programs." Mark, the principal programmer, wrote *Happy Programs--Astronauts*, which is a quiz/learning tool for students and adults wanting to strengthen their knowledge of the space program.

Happy Programs--Math drills users in addition, subtraction, multiplication, and division. The program is adjustable for many ages and skills. Any incorrect answers will be explained thoroughly.

A third in the series, *Happy Programs--U.S. History* is currently under development. Written in Turbo BASIC, all programs are compatible with the XE/XL computers but not with the older 800 Atari's.

Apparently the math program is selling quite well at \$19.95. If you would like to order it, write Bensley Consulting, P.O. Box 301, 217 West Walnut, Westfield, IL 62474. Make sure you include an additional \$2.40 for shipping and handling.

One thing more: the Bensley brothers made it clear to me that their programs are not games; they are serious (but hopefully enjoyable) educational tools for the home and the classroom.

Draw7

(Before sending in my column this month, I received the following article for inclusion in "XE Update." The author, David Beifeld, is also the creator of *Draw 7*. What follows is David's submission.)

DRAW7 (XE), a powerful graphics drawing program, is now available as a shareware product for public distribution. This new version, representing years of development, is designed exclusively for the 130XE or similarly configured machine with extended memory. It offers compatibility with other popular drawing programs while providing many special features for drawing and image manipulation. One of its major features is the ability to record and playback drawing operations. With this unique capability, exceptional graphic results can be produced that would otherwise be difficult, if not impossible, to create. Recorded drawing operations can also be saved to disk like a picture file and made available to other *Draw7 (XE)* users for replay. Additionally, this capability allows you to trace screen pictures to produce (playback) variations, combinations and repetitions of images, either as separate or overlaid graphic displays. Sample playback files that demonstrate these features come with *Draw7*.

Three separate modes of operation are available: **Graph Mode** for drawing full screen pictures in Atari Graphics 15 (Antic mode 14); **Zoom Mode** for drawing within a window portion of the full screen; and **Text Mode** for adding text to Graph and Zoom mode screens from a variety of character sizes, colors, and patterns. **Text Mode** also works with user supplied character fonts.

Draw7 is easy to use, you need only plug in a joystick and pick the program menu "Run" option after booting the *Draw7* disk. Drawing control is through the joystick, keyboard and console keys. A list of commands can be displayed or printed through the initial *Draw7* menu. A Help Menu of commands can also be displayed during program execution by use of the

question mark (?) key. A list of *Draw7* capabilities follows:

- Joystick and keyboard control of drawing and cursor functions.
- Console key control of color changes.
- Save and load screen files compatible with Micro Painter, Micro Illustrator, Computereyes and others.
- Record, save and playback drawing operations.
- Undo the last screen operation and undo the undo.
- Enter text from a selection of different character sizes, colors and patterns.
- Precisely align text anywhere on screen.
- Load and use your own 9 sector character fonts.
- Display disk directories and select screen files to save and load.
- Rubber band line drawing and special effect ray drawings.
- Draw dotted and wide lines.
- Draw circles, ellipses, rectangles and points.
- Draw by inversing screen colors.
- Inverse colors within a specified screen area.
- Clear or erase rectangle screen areas in any color.
- Quickly shift entire screen up, down, left or right.
- Horizontally or vertically mirror, duplicate or invert half of display screen.
- Mirror or duplicate chosen quarter of display screen.
- Flip screen over top to bottom or left to right (can use to make iron-ons).

- Move a saved Zoom mode screen into different areas of a Graph mode screen (like rubber stamping).
- Replicate a Zoom mode screen throughout a Graph mode screen.
- View Graph mode screen in Atari Graphic modes 8, 9, 10 and 11; also supports color changes while viewing.
- Overlay screen with loaded screen file while allowing current drawing color to dominate.
- Erase selected color from screen and erase screen.
- Change, rotate and fill screen colors.
- Remember colors for directly comparing to changed screen colors.
- Print displayed screen file (for Prowriter 8510 printer only).
- Control size and speed of cursor.
- And other features.

Many interesting and exceptional results can be produced by experimenting with these capabilities, each of which is fully documented.

Draw7 (XE) can be obtained through the NOVATARI User's Group Library as a Public Domain disk. Only a small nominal fee for handling is required. For ordering instructions, refer to the NOVATARI XL/XE Library listing found in most issues of Current Notes. Because this is a shareware product, its use and duplication are encouraged, particularly free of charge.

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Spectre Speaks!

I'm Sorry, Dave, I Can't Do That.

Oh, yes you can, HAL. David Small really has outdone himself again, with the latest release of Spectre software version 1.9. I received my copy several days before this writing and found the release to be even better than the last (1.75). This new software release was FREE to all registered Spectre users!

Spectre now supports beta test SOUND. Beta test means, try it if you like it, if you have problems with it, turn it off. When sound is enabled, Spectre's performance is hampered somewhat, compared to the blinding speed normally experienced without it. Of course, sound is a real burden for a real Mac as well. You see, all Mac sounds are generated through the 68000. There are no sound support chips in a Mac, like the Yamaha sound chip contained in the ST.

Dave Does More.

So what else is new? If sound wasn't enough, Spectre now recognizes the arrow keys. Personally, I find this the biggest improvement. I can now do my word processing and general text file editing MUCH easier. Fixes for some of the Seagate hard drives have been implemented. Some problems with HyperCard have been fixed. Some disk eject problems have been

fixed. Some more Laser Printer support has been added, and on, and on, and on.... If you are a registered Spectre user, you really need to get this update.

Spectre Does Postscript.

If you're one of the few who are lucky enough to own a Atari SLM804 laser printer and Spectre, you're in for a big surprise. As you might have already guessed, you can print postscript files! How? Simple, buy a program called *UltraScript* by Imagination Corporation for suggested retail \$229.00. *UltraScript* is an ST program that essentially allows your Atari Laser to emulate a postscript laser printer. *UltraScript* allows you to print ANY postscript file.

Wait! you say. Postscript FILE? Yes, you must save the output generated by a postscript compatible program to a FILE first. Then, run *UltraScript* and tell it to send that FILE you just generated to the Atari laser. This may seem like a hassle, but think of the possibilities.

Imagine, if you will, Spectre running *PageMaker* (a popular desktop publishing program for the Mac). You have just created a 10-page brochure for your newly founded business. If you had a real Mac and LaserWriter, you could just click on print and be done with it. Well, not quite, you would be done with it in about 20 minutes (depending upon the complexity of the page layout). No big deal you say, the ST can't be that much faster?

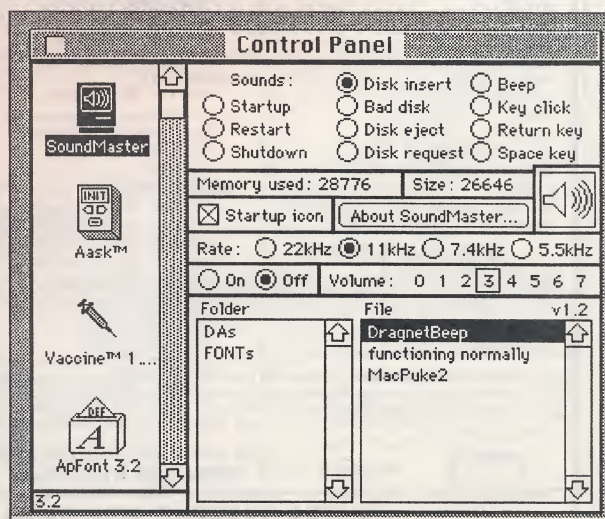
Surprise! Instead of printing the brochure, let's save that 10-page brochure to a postscript file. Then use Transverter 4.20 (comes with Spectre software) to

move that file from the Mac environment to the ST environment. Now load up *UltraScript* and print away. How long does it take to print that 10 page brochure? Try 2 minutes on for size! Yes, there is a factor of 10 speed improvement in Laser Printing with the ST. Bye, bye, slow Mac.

Spectre Can Read.

David Small will be releasing the Spectre GCR in June. The GCR is a hardware device that plugs into the cartridge slot and replaces the Spectre 128 cartridge. The GCR will contain empty sockets for the Mac ROM chips just like Spectre 128 and some extra hardware required to allow the ST to read and write Mac formatted disks! No price has been announced.

There is so much going on in the ST community now--Spectre upgrades, GCR and even a fast IBM PC emulator, PC-Ditto II. Hopefully, next month will be a little less hectic. Well, actually I hope not--I really like those new products and upgrades. Speaking of upgrades, I just traded my 1040 for a Mega 2 (plus some \$\$). Boy, does Spectre shine now! Until next month, Doug.



Use SoundMaster to hear your ST/Mac Bark!
(CN #S17: Sounds No. 1)

New SPECTRE CN Library Disks

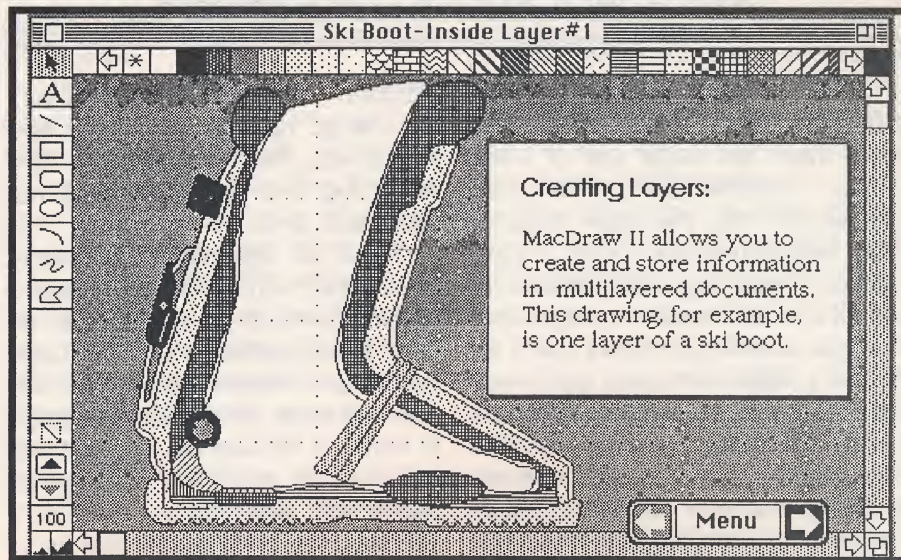
by Jeff Greenblatt

This month, Current Notes is releasing five new PD and Shareware Spectre compatible (128K ROMs) library disks. For those of you using the Spectre with 64K ROMs, I recommend the excellent CN Magic library listed elsewhere. If you like and use any of the files, don't forget to make your shareware donation(s) to the author(s). Here is a rundown of what each of the new disks contain:

Disk S17, Sounds #1, contains Soundmaster and 22 assorted sounds for use with version 1.9 of Spectre. The sound files are MacPuke, MacFart, Ouch!, Bomb, Bark, Cuckoo, Oops, Burp1, MGun, R2-D2 Beep, Ah, DragnetBeep, PWScream, TypeKey, TypeReturn, Self Destruct, Type Space, Trying to Think, Game Over, Fart2, Be back, and Functioning Normally.

Disk S18, Graphics #1, contains 15 assorted graphics files and documentation. They are 1Dmata, DAfx 1.32 plus docs, 3dEDIT, Fly Saver, Kaleidoscope, Optical, Pattern Blocks, Rae, Turbo View 1.01 plus docs, MacPaint Shortcuts (1,2 and 3), and Desktop Shortcuts.

Disk S19D, HyperUtilities #1, contains 10 utility stacks for use with HyperCard. They are Deprotect



Take a Videoworks Tour of MacDraw II (CN #S20D - Double Sided disk)

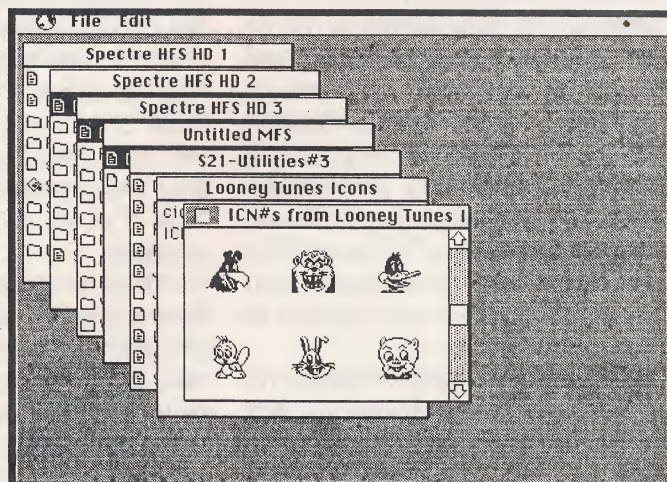
Stack, XPICT, Moving Cursors Tutorial, Button Manager 1.01, Stack Compacter 1.21, Field Line Numberer, CardMover, Six Little Goodies, MH PowerScripts Sample, and ShowDialog 1.5. (Double-Sided Disk)

Disk S20D, MacDraw II Demo—contains a demonstration version of MacDraw II in VideoWorks format and comes complete with a player. It will take you through a full tour of all the new features of this latest version of the program. (Double-Sided Disk)

Disk S21, Utilities #3, contains a mixed bag of 16 utility files and documentation for their use. They are File Scan, Jaws Icon, Jaws Instructions, File Monster Icon, File Monster Doc, SnapShot Installer, Black Hole 6.0.2 plus docs, Looney Tunes Icons, Looney Icons Info, Dog Trash Icon, Shredder Icon plus docs, UDS/M1.1, Virus RX 1.4a2, and SystemFonts. (Note that Jaws, File Monster, Black Hole, Dog Trash Shredder and Looney Tunes are replacement Icons for the desktop and require ResEdit for installation)



Working with Hypercard? Button Manager can help.
CN #S19D: Hyper Utilities No. 1



How About Some Looney Toons Icons?
CN #S21: Utilities No. 3

SCHOPENHAUER'S LAW OF ENTROPY And How It Affects Our Software

Fleet Street Publisher V.2: Still Not There. Have you recently seen these full-page ads of *Fleet Street Publisher v.2* in all Atari magazines: "No one does it better than Fleet Street and YOU!"? Well, Version 1 got very bad reviews in the press and quietly disappeared from the market (last time I saw it for \$15 at a liquidation sale), but things are supposed to improve, aren't they? Somebody puts months of work into the clean-up and addition of new features; MichTron takes over the US distribution and they seem ready to give Timeworks *ST Publisher* a run for the money. And look here: send them the copyright page from any other DTP program, and you can have *FSP2* for just \$50.

Who can refuse such an offer? Here goes my title page from *ST Publisher* and, in a week, a neat package from Michtron is at my door.

The manual looks very good. Casual browsing shows many functions I always wanted to have in a DTP program; let's put the program on our hard disk and tango!

Here is a text file of a memo I recently wrote. Let me read it in and put it into neat columns. The user interface is less intuitive than in *ST Publisher*, but after spending half an hour with the *Calamus* demo and getting nowhere at all, my level of endurance is much higher than it used to be. With the help of the manual, I am getting somewhere. Page one of my document is finally arranged in two neat columns, the paragraphs are formatted, and choosing the printer is a breeze. Let me run the printout.

Forty minutes after installing the program, the first page is out, and the printout from an Epson LQ800 looks good. Hey, maybe this is the

program I have been waiting for? Let me go back to the screen and complete the document: the remaining two pages should not take much time.

How do you make multi-page documents with *FSP2*... let us see... nothing like this in the menus, so back to the manual. Yes, each page has its own window, all right, we can live with three windows. Each page is saved in its own file, all right, we can live with three files. Now, let us delete this sentence from Page 1 and move everything up a little bit...

What? No text flow between pages? Come on, I must have missed something: *FSP2* is being advertised as a "full featured bug-free DTP program"; there must be a way to introduce last-minute changes into a multi-page document. Let us have a cup of coffee and a quiet hour with the manual; if there were such a limitation, it would be spelled with big letters somewhere in the introduction.

Bad news. Small print hidden in Chapter 6, Page 159 says: "...tidy linked text facility will only work within a single page...". This means, that I have to reformat Page 1, clip a piece of text from the top of Page 2, carry it over to Page 1 (and the size has to be just right!), reformat Pages 1 and 2, clip a piece of text from Page 3, paste it at the bottom of Page 2, reformat Pages 2 and 3... how good that my document has only three pages! Adding text to Page 1 would be even more cumbersome.

This, mildly speaking, disqualifies the program for any serious use (except for single-page flyers). Here goes *Fleet Street Publisher* to my WISBI software shelf, to sit there and gather dust together with too many other programs...

Schopenhauer's Law of Entropy:

If you put a spoonful of wine in a barrel full of sewage, you get sewage.

If you put a spoonful of sewage in a barrel full of wine, you get sewage.

This is very unfortunate. Somebody has put lots of clean work into the program; many of its features are first-class (or very close), well-designed and nicely implemented. Yes, the user interface is significantly less intuitive than in the Timeworks program, but this disadvantage may disappear after you get used to it. On the other hand, the *FSP2*'s capability of re-exporting text from a page back into a text file is something I miss in *ST Publisher* and the smart rescaling of fonts makes the program much less memory-hungry than its main competitor on the market. The supplied fonts are very nice, too.

Yet in the view of what effectively is a single-page limitation, all good features of *Fleet Street Publisher v.2* just disappear (so do all smaller flaws, of which there are some). My well-informed sources claim that *Fleet Street Publisher v.3* is going to be released this summer allowing for multi-page documents (a full CN review of *FSP2* will await the summer release). When the new version is out, I may be persuaded to change my opinion. Until then, unless you are planning to limit yourself to single-page documents, stay away from this program.

[*Fleet Street Publisher V.2*, MichTron, 576 S. Telegraph, Pontiac, MI 48053, (313)334-5700]

Will Somebody, Please, Write a Good RCS? The Atari ST is reaching a mature age and its users are enjoying some pieces of very good available software. In

particular, good implementations of almost every programming language are currently available and this makes a lot of difference.

There is, however, one gaping hole in this pattern: a good and reliable resource construction program (comparable to anything available for the Macintosh) is still missing.

Oh, yes, we have RCS programs available from Atari (or DRI), Kuma, Megamax and HiSoft, but each of them is lacking something: one more, one less. Besides that, only the *WERCS* from HiSoft (distributed by MichTron here) can be bought separately rather than as part of a language (or developer's kit) package.

Of all these offerings, the original Atari RCS comes closest to the real thing, being much more convenient to use than any of the other programs. Unfortunately, it suffers from some disadvantages that could be easily removed if only somebody thought about it. I do not even mean bugs, which are just mildly irritating (like the occasional crashes, or the tendency to show sometimes a "normal" text entry dialog instead of the editable text one, or being confused with icons exceeding some size). I can also use a separate icon editor; the integrated one is more a convenience than a necessity.

The file operations in Atari RCS are a mess: the new resource is not just written to the disk, the old file is updated instead (with the old time stamp in place, which can be a source of dangerous confusion). Do you think that frequent saving to disk protects your work? Nope. Save the edited resource, and then crash—and you will see. Your file will have a null size, and there goes your work!

Most of the weak points in the Atari RCS would be really easy to fix: you can almost see the faulty code. Give it to any smart high-school kid and he will bring you the working thing back within a week. Add to it a 50-page instruction booklet, like the one accompanying

WERCS a good job has been done here), and you have a nice, marketable product—in addition to happy programmers writing more programs for our machine. Bundle it with Tim Oren's book—and we are getting somewhere.

My impression is that Atari just does not care. Atari focuses on selling the hardware; software developers are on their own. (A year ago I asked the person in charge of the proper affairs what to do about my *Developer's Kit* registration, which was somehow lost between my company and Atari. Would they accept the sales receipt, or original disks, or what? No answer, who cares?) So, you see, it takes a motivated hobbyist to stay in the Atari market, particularly since there isn't much money here.

In the Meantime: *WERCS* from HiSoft. Coming back to the RCS question: the Atari RCS leaves a lot to be desired, but it is the best one available. The *Laser C* RCS still crashes quite a lot (more than the previous version, distributed with *Megamax C*), while the *Kuma RCS* (now available only as a part of *Mark Williams C*) and *WERCS* are less convenient to use and also have some funny limitations (as, for example, text objects too short for some applications).

Still, if you want to include resources into your programs and if you do not have an RCS program, my recommendation is to buy *WERCS*. It does get things done and you can get used to it. The accompanying instructions are quite brief, but good, with a lot of useful general information about GEM objects and their attributes; except for the Prospero documentation of the AES GEM library, it is hard to find something as good or better.

The price is also right (about \$40 after discount), and there is no other RCS available separately. So, while *WERCS* may not be a very good choice, it still is the *best* choice, however strange that may sound.

[WERCS Resource Construction Set, MichTron, 576 S. Telegraph, Pontiac, MI 48053, (313)334-5700]

ST: Still the Cutting Edge?

The folks from Acorn, the British company responsible for the Beeb (or BBC home computer, used as a school standard all over Great Britain), came up with a new machine, being sold in Britain since last Summer: **Acorn Archimedes**.

The computer seems to be aimed at the poor scientist and advanced hobbyist market (did they really have yours humbly in mind?). Its basic specs include: a real 32-bit, 4 MHz proprietary RISC processor (why so slow?), 0.5 or 1 Megabyte of RAM, up to 640 by 512 pixels in 16 colors on screen (320 by 256 in 256 colors) out of a 4096-color palette, advanced stereo sound chip with 16 channels, serial, parallel and video ports and more.

There is already some software available for Archimedes: maybe even 300 titles, but virtually no games (less than 20 at the last count). Archimedes 305 (500k RAM, monochrome) can be bought for 650 British pounds, and model 310 (1MB, hardware PC emulator, color monitor)—for 900. There is also a model 440 (2200 pounds sterling), about which I know nothing.

Will Archimedes threaten the Atari ST or Amiga in their market niches (as small as they are)? Not in the US, I think. This is a tough market where the virtues of your product are of secondary importance, as compared to an established dealer network and vigorous advertising. But in Europe—the same factors which worked for Atari there, may now work for the Archimedes. One may even imagine that the latest promises of having the 68030 Atari TT out this year may have something to do with the recent developments at Acorn?

By the way, has anybody heard of the **PC Engine**—the ultimate game machine, with 1 MB of memory and all custom chips? Not really? It seems like we miss all the fun here, in the Good Old U.S. of A.

Let's Ban Semi-Automatic Computers

By: Dave Small

*From the Rocky Mountain News-Post,
April 12, 1992:*

Ban 2400 Baud Modems Now, BMC Chief Says

by: Ted Stein, Computer Affairs
Reporter

Roland Livingston, director of the Bureau of Modems and Computers, today called for a complete ban on 2400 baud modems. "The average person can only read at 1200 baud," said Roland. "There is no need for them to have higher speed equipment. Speeds above 1200 are commonly used by hackers to pirate software via modem, or subject computers to high-speed attack through their dialup lines."

Livingston, speaking at a news conference, continued. "The file transfer is commonly done by X-modem"; sources in the hacker underground say the "X" refers to the "skull and crossbones" flag of a pirate.

The Bank of America tragedy in 1990, in which tens of thousands could not access their banking funds for days, after a computer break-in of the Bank's computer, was perpetrated by a hacker with a 2400 baud modem and software working with a high speed, 16 mhz 68030 system, an Atari "TT," the Director said. This awakened the average American to the danger of hackers and modems.

Such high speed computers, with processors capable of cracking banking codes, are now licensed to only legitimate users who go through the BMC licensing process. "The average citizen has no need for so much computer power; a semi-automatic, 4.77 mhz PC, is more than adequate for word processing, data bases, and spreadsheets. Higher powered processors are only useful for cracking security codes. And, of course, video games, such as Nintendo, are not regulated."

Chief Livingston also noted that the Bureau now licenses "fully automatic keypressers," also called Macros, only to legitimate, known software

houses. He explained, "Hackers often use 'macro' programs to automate the process of breaking into computers. These dangerous 'macro' programs generate many keys when the user presses just one key. Macro programs press keys at high speed, as when repeatedly trying passwords to break into a computer. In the hands of a hacker, a macro is a dangerous tool. There is no need for this software to be in the general public's hands; after all, they can press the keys for themselves!"

Similarly, we carefully regulate automatic and semi-automatic dialing modems; again, a legitimate user can dial the phone himself. Hackers use self-dialing modems to search for vulnerable computers.

He concluded, "We don't try to keep fully automatic computers and modems from corporations and licensed collectors; we only try to keep them out of the hands of irresponsible hackers."

The BMC requires a potential buyer of a fully automatic modem or above 8 mhz personal computer (PC) to obtain permission from his local police chief, submit two passport-sized photos of himself, current fingerprints, and a \$200 National Modem Tax (NMT), along with BMC Form 4. Usually, six weeks are required to process the application, if the local police will approve it.

(Most large cities, with vulnerable computers, do not allow any fully automatic computers or modems. Some rural areas do; this is left to the discretion of the local Sheriff.)

As usual, the special interest group, the National Computer Association (NCA), condemned Chief Livingston's statement, and once again called for the repeal of the anti-hacker computer and modem laws, but appeared to have little impact on local politicians. The average American is well aware of the power of a hacker over banking and credit systems.

SMALL



Introduction

Everyone tells me the future of computers is great. They point to the upcoming 9600 baud modems, the 68030 and 68040, OS/2, the NeXT software interface.

Let me play Devil's advocate here, and point to another equally possible future. The article above is the prediction; it is just as possible that our machinery is going to become regulated and controlled, even banned, in the near future.

What?, you say. How can I possibly justify this conclusion? Dave Small's gone paranoid on us.

Well, wait a minute. I justify it by looking at modern trends, the effects of mass media, and what's going on even today in this country. I think we are far down the road to losing what we've got--possibly it's too late even now.

Still, knowledge is power. If I can point out the pattern, you can perhaps, maybe in some way, help oppose this when it starts. The war for our personal computer rights is beginning and most people don't realize it yet.

Tools

Man was once defined as a "tool user." We're the ones with enough brain cells to extend our (limited) abilities by using tools. For instance, a bow and arrow let us catch/eat animals that we otherwise couldn't catch with our bare hands. Without tools, we would have gone the way of the dinosaurs.

Computer users should identify with this. More RAM lets you do more. A hard disk lets you do far more. This philosophy permeates

computers; for instance, the UNIX operating system is based around giving you **hundreds** of tools, and letting you chain them together to get whatever job you need done.

Computer tools, too, can be used constructively or destructively. You can build a virus; there's even an ST Virus Construction Kit out of Germany, for heaven's sakes. Or you can build something like Tom Hudson's brilliant CAD-3D. The computer is just a tool.

My point here is that *tools are only as good or as bad as the person who uses them*. A tool has no conscience, no morals; people do. Tools extend one's individual power; there is no such thing as a dangerous tool, only a dangerous user.

Our computer tools are getting very powerful and very cheap. A 20 mhz 68030 box with 8 meg of RAM and 100 meg of hard disk sits on one of my desks. That's going to be commonplace in a year or two. And here Steve Jobs just upped the lowest common denominator with NeXT.

Okay, here's the bad part. Just what is going to happen when some irresponsible person puts those powerful, powerful tools to ill use? Such ill use that it hurts the average person, causes havoc, and gets big publicity?

What Is Happening Today

Today, pirate networks span the country, helping drive software companies out of business. For instance, my Spectre 128 has been cracked of copy protection and is on those nets. But let's make this more personal.

In doing research for a Current Notes article on the pirate/phone phreakers, I learned a great deal.

Your credit rating stands open to attack from any well informed "cracker" with the right phone numbers and passcodes. Given **just** your phone number, I can CNA you (Customer Name & Address), find out where you live, cancel your driver's license, destroy your credit rating to where your bank won't talk

to you, and run you up a hundred thousand in Visa/Mastercard bills.

People are doing this now, today. A reporter, Richard Sdanza, was electronically terrorized in the manner I just described when he reported details of the pirate nets in News Week. In short, folks with few morals already have great electronic power today.

Now, a few facts of life about mass media and the public perception of computer users. They think of "hackers" as dangerous people, breaking into bank and defense department computers, maybe even capable of shifting satellites in orbit (says CBS news) or starting World War III ("War Games.")

You and I know this isn't what PC's are all about. But the average person doesn't. Given the widespread perception of us, persuading a non computer-literate person to ban modems and PC's would be easy.

To drive this point home, I'll use a somewhat controversial topic of today. Let's take a real-life example going on right now of how a powerful tool is being banned, for no particularly good reason, and see how it could happen to computer users.

Another Powerful Tool

A user with another powerful tool is the rifle owner. Right now, there's an active movement to ban "assault rifles" in this country; it all started when some kook went crazy with a rifle in Stockton, California, and killed / injured some school kids.

So who gets the blame? Not the kook; he's dead, in fact. The TOOL gets the blame. The semi-automatic rifle is a tool. Just like a computer.

Now semi-auto rifles have been with us a long time, like since the modern "bullet" was invented, and are no big deal. Like any tool, you can use it irresponsibly. But most people, the vast majority of owners, are responsible.

Ah, but label this semi-auto rifle as an "assault rifle," mix it with a Horror Story like Stockton, and sud-

denly we have A Mass Media Story! A Cause! "Let's Ban Them 'Assault Rifles!'" (And we sell lots of papers.)

All because ONE kook misused a powerful tool. (Now, just think of a "Hacker" with a "powerful computer" wreaking havoc. It isn't difficult to imagine what the media would do, is it?)

Speaking as someone a bit in the media business, I know controversy sells papers. Everyone snickers at the National Enquirer, BUT, the fact is, it is the largest selling weekly in America.

The term "assault rifle" is an extremely vague, emotion-laden phrase, that in fact, no one can define. Even legislators trying to ban them can't define it! They keep coming up with definitions that result in banning of all semi-auto rifles, which number in the millions.

How about "Hackers" as a vague, emotion-filled phrase? It'll be just as easy to start an anti-hacker movement.

Many people will say guns and computers are so far different that my analogy is silly. I have to disagree. It's just that no horror stories have happened yet that hit the average person where it counts.

But it's going to happen. I think the most **likely** possibility is a shut-down of a big bank network, freezing the funds of many people's checking accounts.

Why Should I, a "Hacker," Care About "Gun Nuts?"

Well, remember the old story of the person who did nothing while various minorities were discriminated against, because he wasn't a member of their groups? When he was discriminated against, he found there was no one left, at all, to stand up for him.

A few kooks soured firearm ownership, so the government is trying to take away firearms. A few kooks are presently souring personal computer ownership in a big way.

This is why you should care. As other's rights go, so do yours.

So I predict—and I feel very sure of this—there will be legislation affecting computers very shortly, that will restrict our personal computer's power. It will begin with a horror story, move to licenses, then towards restrictions, then prohibition. Look to gun laws for the history we're about to experience. Here's a quote from the future: "Personal computers are far too powerful to be left in the hands of mere citizens."

"Ridiculous!" you say? That's what gun owners used to say. They don't say that anymore. Gun owners used to confidentially point at the Constitution and say their "right to keep and bear arms" was protected. It's not doing them any good now.

If a Constitutional right doesn't stand up, what makes you think your "right" to a PC will?

Did you know that a proposal to increase connect rates to online services (GEnie, Compuserve) from the FCC was only just turned back after a massive letter-writing campaign, sponsored partly by those services? The additional \$5/hr in charges would have put the services out of reach of many people. The FCC can try again to do this any time; they are an unelected government agency. Who is going to stand up for computer folks when it is our turn to be grilled?

Restriction Campaigns

Campaigns to regulate/restrict/prohibit something ALWAYS follow a predictable pattern (because it is time tested and works):

First, there are always people willing to be a regulatory staff; some folks are just plain control freaks, and want to push their morals onto others, while others want the budget and staff that go along with new controls. They await the opportunity.

Second, something happens. A Stockton Massacre. A hacker stopping up a bank system, hitting people in their pockets. There are "Horror Stories" told in the media. A momentum develops, with Right Thinkers conforming, and saying the

same things over and over. These take the form of slogans: For instance:

- × There is no valid use for an assault rifle.
- × The only use for a gun is to kill people.
- × Autodial modems are only useful for cracking computer security.

People scream for the government to Do Something!

Third, politicians see an advantage in acting in a way that voters will see as "taking action," and pass restrictions. Surprise, a governmental agency (Step One) is allocated to manage it all, and a budget is allotted for it. The agency is set up and gets money—and when did you **ever** last see a government agency get phased out?

You are seeing the future of personal computers, tomorrow, in what's happening with guns, today.

And You're Next: Horror Stories

Now, it's time to scare you. You're being led down the same path that gun owners are; they're just farther down the path. Think of what you see in the media about computer people. That's YOU to the majority of America, to the people who get their news from the fast-food-news specialists at Network News.

The **best** you'll get from the Modern Media image of a computer pro is a pathetic hacker nerd, with thick glasses taped together, toothpick arms, a pocket protector, calculator, and a pasty complexion. The worst is a criminal capable of bringing our electronic-based society down to its knees.

Computer abusers are called "hackers" by the media; this once proud term, which used to connote someone who enjoyed pushing the envelope, is now only applied to people pushing the envelope to cause damage.

The person who virused thousands of UNIX systems recently, via the various UNIX networks, received widespread publicity ... as a "Horror

Story". He didn't even CRASH the systems, just virused them, although, yes, he could have wreaked havoc and crashed them all. Big media coverage. Government panel appointed to look into it.

In the movies, we have "War Games," where Matthew Broderick almost starts World War III by dialing into a missile control computer with a "War Game dialer." I can't tell you the number of stories I've seen about programmers stealing from companies, or planting Trojan Horse bugs in payroll programs.

One article said that a hacker changed the position of a satellite by sending it propulsion commands! (This was false.) NASA set up a computer security department.

A group from West Germany broke into un-named "Defense Department Computers."

Time magazine ran a **cover** story on computer viruses giving the usual Horror Stories and Predictions Of Doom that mark Time.

Imagine what the average person thinks about us! Why, we're more dangerous, flaky, than an owner of one of those... "assault rifles." We're weirdos. Nerds. Creeps. And if we're allowed those dangerous tools, computers, we can wreak havoc!

Now look. all of this image-making couldn't be worse for PC users, particularly the ones with modems. What we need, right now, is a really hot Madison Avenue PR agency to put out the good word for us. We need a Lee Iacocca. This is not going to happen, as we're an anarchistic group at best.

The average person is *terrified* of computers (and guns). He doesn't use or understand them. The news tells him of these hackers who can wreck society, who steal things, who could cause a world war, who break into Defense Department computers. The news tells him of assault rifle owners who murder school kids, too.

The other side of the story—the 99% of PC owners who are responsible, moral people, the 99% of gun

owners who are responsible, moral people—NEVER gets told. It's not interesting, not controversial, doesn't get people's blood boiling.

If someone proposes legislation to "regulate" and "license" these computer "hackers," do you think the Average Joe is going to disagree? Heck, no! He'll say, About Time!—and vote for the Responsible Politician who votes for the bill. And we've got our Bureau of Computers and Modems, and licenses, and regulations, and bans, of which the "article" at the start of this column talks about.

Did you notice the little biases in that article? The little inaccuracies about X-modem? That's just like the "assault rifle" definition gun owners face; truth is, no one can define an "assault rifle" well enough to ban it! Same thing. Did you notice the flat statements that this computer equipment could only be used to crack computer security? You and I know differently, but the average person does not; just as I know rifles have many uses, not only "killing people". It's the same emotion-laden hype.

When It'll Happen

Soon, there will be a big Horror Story for computers, like the Stockton story was with rifles. Given what computer criminals can already do, it's a matter of time before one does something major league.

Perhaps a network of UNIX computers will be destroyed; perhaps our nuclear capability will be temporarily fouled up; perhaps the banking network will drop; perhaps a major news figure will fall under electronic harassment. (The worst would be if someone zapped a TV network feed; that would be like pouring gasoline on the flames. I mean.. banking or nukes are one thing, but screwing with ADVERTISING DOLLARS is serious stuff!)

That's when it will hit the fan. There will be Public Outrage. The media will love it and will cover it, selling lots of Times and Newsweeks. There will be a mix of mis-

information, the Right Thinkers will say that our tools are too powerful to be in the hands of mere citizens. And they'll ask OfficialDom to step in and save us from ourselves.

The personal computer, and modem, with all its potential, will be regulated and limited. Let's look into what opponents of our equipment will say:

3< We'll see calls for banning modems, or at least, high speed modems. ("After all, most people can only read at 1200 baud! They can't use a higher speed mode for legitimate use. Faster speed is often used by hackers and pirates to 'X-modem' files.")

3< Modems that auto-dial, "used for WarGame dialing," will be banned. "After all, people can dial phone number themselves! There's no legitimate use for autodialers. They are abused to dial number after number, scanning for vulnerable computers, or used for harassing people."

3< High speed computers that can "crack security codes" will have to be licensed, of course, to prevent misuse. Remember how you can't ship an AT class computer to the Soviet Bloc? Same thing. It could go farther if the Horror Story is a virus that causes widespread damage and public outrage. I still think a banking scare would do us in. The average person cares a LOT about his money in the bank.

3< Assembly language may be controlled to "licensed programmers"; "After all, there is no need for the average person to use assembler, which can be used to 'hack' systems. BASIC is good enough for all but 'professional programmers,' who can always get a license for their tools. The PEEK and POKE statements, which can be used as a hacker's 'back door,' will be removed."

You don't believe it? It's happening now with guns. You've all seen the news stories on computer crime, about Hackers. We're just one big Horror Story away...

Of course, a governmental agency will have to be set up to license modems, ensure they don't go over 1200 baud, license autodial modems, and license assemblers and software only to "approved," "professional programmers." Then, you'll need to go to this agency, fill out an application, wait six weeks, and see if they'll approve of your having "advanced equipment" that a "normal user" doesn't need—e.g., anything over a 4.77 mhz IBM PC. And just WAIT until you see government "approved" programs.

Yeah, I know, you're thinking: I'd just ignore the regulations. Think if a prison sentence and felony record is worth it. That's what gun owners get if **they** ignore the regulations. That's different! you say. How?

Perhaps you think I'm being paranoid in that "news" article about licensing procedures, passport photos, fingerprints, and chief of police signoff.

Guess what? That's what gun owners have to go through today to own "National Firearms Act" weapons. In short, *it's already happened*, and is waiting to happen to us. The precedent is established. The media groundwork against hackers is laid. All that it will take is one big incident, and that will be it.

The word "modem" will take on the connotations of "assault rifle"—something you only use to crack into computers, to hassle people, "with no legitimate purpose." You'll find yourself being bitterly condemned for owning a "modem" by Right Thinking People.

When the software houses complain, they will be termed "Special Interest Groups" as the National Rifle Association is labelled, whose only interest is keeping dangerous tools in the hands of an irresponsible group of people.

Conclusion

Well, there you have my opinion. Man, I hope I'm wrong.

The greatest potential for advance in human history—the

Continued on page 28

PIRCS: Personal In-Room Communications System

A Couple of Atari STs and Hundreds of 65XE Motherboards

What do Walt Disney World, the world's largest cruise ship and a Montreal hotel have in common? They're all using a new, hi-tech interactive communications system called PIRCS. It allows the hotel guest or cruise ship passenger to access information, view pay movies, retrieve messages, order breakfast, set a wake-up call or check out, all accomplished through his in-room television set. And why should this be of interest to readers of *Current Notes*? Because Atari computers are an integral part of the system.

PIRCS, which is an acronym for Personal In-Room Communications System, was developed at a cost of several million dollars by a Phoenix-based company called Vidnetics, Ltd. Vidnetics began marketing PIRCS in 1985 and has since signed contracts to install the PIRCS system in cruise ships operated by Royal Caribbean Cruise Lines and Princess Cruise Lines, and hotels at Walt Disney World, Chicago, Toronto and Montreal, to name a few. Each installation requires a couple of Atari ST's and hundreds of Atari 65XE motherboards.

The PIRCS system consists of a central (Head End) computer, typically a modified NCR Tower, and hundreds of custom electronics units (called In-Room Units) located in each of the hotel rooms or cruise ship cabins. The Head End Computer has an enhanced high speed communications card that allows it to communicate with the In-Room Units in the network at an astonishing 156,000 baud.

The In-Room Unit is an electronics device consisting of a custom electronics board containing an RF modem, infra-red receiver, LED display, cable tv tuner, and ROM-

based intelligence controlled by a Z-80 microprocessor. In addition, the In-Room Unit also contains an Atari 65XE motherboard. The Atari is used as the computer video display system, allowing PIRCS to display computer generated text, colorful graphics, computer music and sound effects, even animation sequences and video games.

To the guest, PIRCS appears to be simply an intelligent television, capable of displaying normal television programming as well as providing information and interactive services. At first glance, PIRCS looks quite ordinary. It is when you begin to use it that its incredible power becomes apparent.

When you first turn on the television, you are greeted by an attractive graphic screen welcoming you by name to the hotel. PIRCS interfaces with the hotel's property management system and at check-in, receives information telling it the name of the guest(s), credit authorization, room number and other pertinent data. Once you are checked in, you interact with PIRCS on an individual basis.

You communicate with PIRCS using a familiar television remote-control. No computer keyboard is required for normal operation. In addition to the standard numeric keys and channel/volume controls, there are additional keys that allow you to interact with the PIRCS system. To further encourage familiarity, the PIRCS system is organized into a channel structure, looking much like a cable television network. Generally, the normal television and cable stations occupy their standard channel positions (2 - 50) while the PIRCS channels occupy positions 60 through 99.

Channel 99 serves as the Channel Guide, which displays a listing of the channels currently available for viewing. An Atari ST, running custom software and in constant communication with the Head End computer, provides the video display for the Channel Guide. Because of the link between the ST and the Head End computer, channel text can be updated immediately, even allowing movie titles and show times to be displayed on a time dependent basis.

The Atari 65XE board serves as the in-room computer display source. Since each room has its own In-Room Unit, guests can communicate with PIRCS, and access information and interactive services independently of other hotel guests. The In-Room Unit intercepts the signal from the remote control and processes that signal to determine if the guest is requesting a video channel or a PIRCS computer information channel. If the channel request is for a video channel, the In-Room Unit tunes the television to the proper channel and waits for another keypress. If the request is for one of the PIRCS channels, it tunes the television to channel 2 (or 3, depending on local broadcasting) and sends a request to the Head End for the appropriate Atari graphic. When this has been received, it loads it into the Atari's memory and displays the graphic on the television screen. While the graphic is displayed, it then sends a request for the proper text file. All of this is accomplished in less than five seconds.

Information is organized and accessed through the use of simple menu structures. Menu items consist of brief descriptions of the con-

tent. Pressing an UP button scrolls these menu items into a selection "window" where the text is highlighted. Pressing a SELECT key on the remote control will cause that menu path to be selected and the next level of the information database to be accessed. Subsequent levels can consist of additional menus or text/graphic information. In this manner, voluminous information can be retrieved quickly and easily. Since menu items are scrolled into a selection window, there is no limit to the number of menu items that can be presented at any one level.

Because of the two-way communication between the In-Room Unit and the Head End computer, guests may also make use of interactive services such as Wake Up Service or Room Service. To set a wake up call, the guest simply enters the time he/she wishes to be awakened. After confirming the time, the In-Room Unit sends the information to the Head End computer. At the specified time, the Head End computer sends a wake up call to the In-Room Unit. If the television set has been turned off, the In-Room Unit turns on the TV and, depending on the preference of the guest, either tunes to the Channel Guide with its music background, or activates a buzzer or chime. Any keypress will silence the alarm. If, after a certain amount of time has passed and there has been no response from the guest, PIRCS can alert the hotel staff who can then contact the guest by phone or in person.

Room Service (or Continental Breakfast Service) is another popular feature of the PIRCS system. This function allows guests to order from a menu of food and beverage items with the ability to tailor their orders to specify the kind of coffee, the number and kind of eggs, or how rare they want their meat. Orders are routed to the hotel kitchen where they are printed out with the guest's name and room number. Billing information is sent directly to

the Property Management System where it is available for review at any time through the Bill Review channel. Checkout allows guests to check out of their rooms without ever having to stand in line at the front desk.

These interactive applications are essentially Atari programs, written entirely in 6502 assembly language, and loaded by the Head End computer at the direction of the Z-80 controlled In-Room intelligence. For all intents and purposes, the guest is running an Atari 8-bit program, with the Z-80 pressing the "keys" on behalf of the user, and accessing data files from the Head End as it would from a disk drive.

Other features currently available on the system include pay movies and messages. On cruise ships using the PIRCS system, passengers may book shore excursions, order dinner wine, and view maps of the ship as well as access schedules or read about the upcoming ports of call. And there are no limits to the capabilities being developed for the future, including video games, a video music jukebox and airline and restaurant reservations.

Hotels value PIRCS because it allows them to offer more personalized services without adding staff, offers them better control of their management and higher operating efficiency, and gives them potential for additional sources of revenue.

The Atari 400 was chosen in 1983 as the computer display device and the 65XE continues in that role today, despite rumors that Atari has ceased production of the 65XE. **The Atari is still the most cost-effective solution while offering color graphics, readable text and sound/music capabilities.**

In 1987 the Atari ST took over the duty of displaying the Channel Guide. This was an important step in that it allowed the Channel Guide, the most frequently viewed screen on the system, to display more colors in a greater resolution than was

previously possible with the 8-bit Atari. Since the Channel Guide is broadcast as a video signal to all units, only one Atari ST is required for each property. PIRCS makes full use of the animation capabilities of the Atari ST, allowing for colorfully detailed graphics to supplement the text information display.

I have been involved with the PIRCS project since its earliest prototype stages of development. As the primary graphic artist, I have worked hard to maximize the potential of the visual display and push the Atari to its limits.

Originally, graphic screens were developed for the PIRCS system using a CALCOMP digitizing tablet and custom software that allowed use of mode 7 (4 colors) and mode 8 (1 color, 2 luminosities) graphics modes. *Micropainter* was used to add detail for mode 7+. Finished graphic files were transferred to the system using *AMODEM*. This was a slow and somewhat clumsy process, but with the advent of the ST, I was determined to find a way to make use of the software power of the ST to produce the 8-bit graphics required by the system.

In 1988, I succeeded in developing a program that would allow me to use *DEGAS Elite* (my favorite graphics program) to create all of the graphics for PIRCS. The first priority was to find a way to produce mode 8 graphics quickly. Using the digitizing tablet on our Atari 800, it was not unusual to spend the better part of a day creating a logo or intricate graphic design in the high resolution mode 8. I knew that the Atari mode 8 screen was 320 x 192, and the ST low resolution mode was 320 x 200. Close enough! I just ignored the last 8 scan lines and wrote a program that converted a *DEGAS* picture file (minus the last 8 rows of pixels) to a PIRCS mode 8 graphic. It worked!

Well, heady from success, I determined to accomplish the same thing with mode 7 graphics (the most common graphic format on the PIRCS system). I knew that

mode 7 screens were 160 pixels x 96. Exactly one quarter of a mode 8 screen. So, I reasoned, if I restricted myself to using only the one quarter of a DEGAS screen, I should be able to use the same procedure I was successful with before. Complications arose with the color palette, but were overcome with the help of another programmer on our staff.

Now that I am producing all of the PIRCS system graphics using just the Atari ST and *DEGAS Elite*, I shudder to think what I went through just a year ago. The power and sophistication of *DEGAS Elite* makes creating graphics enjoyable and has greatly increased my efficiency. Graphic screens that took three to four hours to produce on the Atari 8-bit system can now be completed in less than half the time. I also use the ST for producing technical drawings, marketing reports, publishing of manuals, proposals, spec sheets and much more.

PIRCS has been on the market for less than two years and has been successful in attracting the attention of major hotel and cruise ship companies. Following the highly publicized maiden voyage of RCCL's *Sovereign Of The Seas*, Walt Disney World approached Vidnetics regarding using PIRCS in all of their hotels. At this time, the glamorous Grand Floridian Beach Resort at Walt Disney World is being installed with plans to place PIRCS in the upcoming 1000 room Caribbean Beach Resort hotel in 1990. Princess Cruise Lines has committed to PIRCS for three new ships and Hyatt Hotels has expressed great interest in the PIRCS system for its entire chain.

With this kind of interest, it appears likely that PIRCS will be around for a long time. Who knows, maybe the next time you travel, you may use PIRCS. As an Atari owner, you can be proud that Atari computer technology has played a big role in its development.

SMALL WORLD (continued from P. 26)

personal computer--is probably going to be regulated and controlled. Modems are probably headed for the same thing. We can't stop a few nut-cases from using them right now to cause harm; they are going to ruin it for the rest of us, as surely as Stockton sealed the fate of gun owners.

So, next time you read an article against "assault rifles," realize what's really going on. It's yet another freedom being taken from you. Sure, it may not be something you want right now. But who knows. Maybe you'll change your mind. And it will be too late--those rifles are gone as of NOW, March 30, as I write this.

There's no Constitutional Amendment protecting personal computers, nor modems.

I hope this all doesn't come true. I hope I'm crying wolf. But I

think it will.

I'd like to leave you with the thought that everyone's rights are important--or no one's rights are.

Thanks, and see you next month, provided I still am allowed to own "hacker's tools"--a modem--and a high speed personal computer.

If you'd care to comment, I'm at:

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GENie: DAVESMALL

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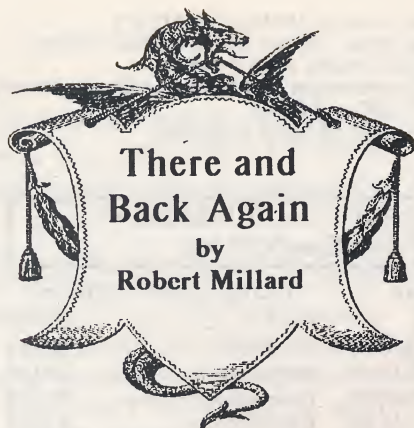
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WAR IN MIDDLE EARTH

Skirmish Among Gamers

[The following transcript was captured off a heretofore unknown BBS that I have been unable to log onto since. The personages involved sound remarkably familiar, but only the narrator, M'lord Trebor, have I personally known. There was no indication on this file as to when the conference took place, and with its surreal tone, I question if it existed at all. Nonetheless, there is, I believe, some small wisdom to be gleaned from it.]

During this recent lull that finds so many ST questors out-of-hire, I was met on the Plane of Abeyance by Borborygmus of Ileum. He is constantly grumbling about this and that, and I full expected him to approach me churning and gurgling about the return of Chaos, for entering that Dungeon again was (and is, I hope) a task soon ahead of me. But what Borbor told me, in his guttural tongue, was that a secret council was being held in Reviewdell by L. Ron of the Selves, and that I should make for there forthwith. Looking through my teleportation spells, I chose 'apport arcane' and found myself at L. Ron's court in Reviewdell. All about me were stern and expectant, evidently, of my arrival. Gandolf the Ray, that futuristic scribe, stood at the self's side. Seated opposite them was Araparent, the Ranger, with the three hobbits, Freedough, Sham, and Billfold. Grimley the Dorf stroked his bizarre, vertical pompadour. Boroughmayer of Koch sat manacled to Gotham, an emaciated wretch that smelled of garbage and was covered with viridescent scales. (I smirked in thinking which, indeed, was the prisoner of the other.) L. Ron drew me in to the concern.

"Few creations and creators are apotheosized, M'lord Trebor, but J.R.R. Tolkien and his trilogy have long been accorded such stature. His characters and their world are the Source, the wellspring, of all fantasy games, and to treat His works with less than the highest integrity could be seen as blasphemy. A game designer risks being burned at the stake by critics, and likewise, (L. Ron pointed a finger towards me), a critic risks exposing his scholarship, or lack thereof, about the subject. Nonetheless, Melbourne House has released this, this..."

"Show them the game, Freedough," said Gandolf the Ray. The peck brought the package from underneath the table and held it eye-level.

"Isildur's game!" said Boroughmayer, his hands moving hesitantly forward. His nasal voice caused the attendant selves to cover their ears. Gotham's eyes glowed like neon. "The Precious," he hissed.

"Isildur and Sauron, and all who followed them," Araparent added.

Grimley snorted in his chair. "It seems like a decent enough game, I must say."

"You are a man of words and pictures, Gandolf the Ray," said L. Ron. "Relate if you can, the look and feel of this product to M'lord Trebor. For that is our purpose, Trebor, to determine if it is, as Grimley suggests, a decent enough game."

Gandolf began. "There are two main looks to the game; one being the animation level, the other, the wargame level. On the animation level, all of the main characters and monsters of Middle Earth can be seen moving transversely, a bit larger than in *Heroes of the Lance* and drawn nearly as well. These include hobbits, dwarfs, elves, wizards, knights on horseback, rangers, soldiers, wights, trolls, orcs, balrogs, wolves, and spiders. All hobbits, be they Frodo, Sam, Pippin, or anonymous wanderer, are drawn the same; likewise is it so for the other characters and races. All told, they are rendered faithful and well.

"No less impressive is the world in which the characters travel. At first it appears to resemble Tamir in *King's Quest IV*, in that screens are flipped as the fellowship, always moving left to right, reaches the right edge. But there is little disk access, and the art achieves greater realism. A kind of digitized sorcery is employed that gives Middle Earth an impressionistic look. Much more fantastic is that this generated scenery gives the illusion of endless variety. The realism this sorcery achieves is startling, I assure you. And all of the strategic points of the land are represented: Rivendell, Lorien, Minas Tirith, Isengard. Mordor. Ach, Mordor! If your first view of the gates at Morannon does not chill you to the marrow, you're made of tougher bones than this grizzled spell-weaver. Then there is the campaign level..."

"Let a man of arms tell this part," said Boroughmayer, rising in his ardor. L. Ron scowled at the lack of manners, but also, as I was to learn, because he knew Boroughmayer's position and disagreed with it. Gandolf was merely impassive as he listened. "The campaign level map is thirty-six screens large, done six-by-six. It scrolls as fast as lightning, and looks like a smaller scale map of say, Gelnor or Ferronrah from Phantasie. All of Middle Earth is portrayed, and you can click on any location and gain wisdom about it. All known parties are shown as icons moving towards their destination. A magnifying glass pointer can be used anywhere on the

map, and it will take you to the animation level at that very spot. This is a novel way to tour, shall we say, the major points of interest, like the gates of Morannon that Gandolf mentioned. As if there was time to idly sight-see. You must move often from the map level to the animation level: whenever a character meets friend or foe, or to pick up one of the five special items needed to enlist the friendly armies: the Mirkwood elves, the dwarves, the Riders of Rohan, the Ents, and the legions of Minas Tirith..."

"What do you know of diplomacy and adventuring, Boroughmayer?" said L. Ron. "Please get back to your limited area of expertise."

"I only mention these annoyances because without the special item each faction requires, it will not accept your orders on the battlefield. And battle, my idealistic quest-seekers, is the heart of this Middle Earth, despite its pleasant scenery. All the legions of the land are portrayed as shield icons bearing the symbol of their allegiance. Just as you can split up the Fellowship to seek the special items, and thus change the making of great myth, so can you alter the strategies in the War of the Rings. Abandon Helm's Deep and stack all at Minas Tirith. Boldly invade Mordor itself. Divert Sauron's forces and clear a path for the Ring-bearer. I get delirious with strategic options! Total control over every force Tolkien mentioned: Der-vorin and the men of Ethring, Erkenbrand, Denethor's Tower Guard, Theoden, and all the rest, pitted against hordes of trolls, Southrons, Varga's, the orc chief Gothmog..."

"All of them supernumerary, all of it--meaningless!" L. Ron said, his eyes hard upon Boroughmayer. "You talk exultantly of diverting Sauron. Diversion for what?"

"Oh, it's true," said Boroughmayer, bent upon a different diversion, "I'll concede the game is tactically shallow. In battle, your choices are only assault, engage, withdraw, and retreat, but the same is also true for combat on the animation level. Windows appear as in *Defender of the Crown*, and then it's just watch and wait."

"True as that might be, it is not the main problem, Boroughmayer, as you well know," said L. Ron. He straightened his arms and placed the weight of his shoulders upon the table, craning towards Boroughmayer. "The problem with this game, is that the poorest of strategy and tactics will not deter the ring-bearer from succeeding in his quest. One might just as well

have a jester for a general, because it just doesn't matter! Destroying the ring and winning the game is JUST TOO EASY!"

With a sudden turn towards the group, the pacing Gandolf drew their attention. He recited the infamous couplet.

One game to lure them all, one game to bait them,

One game to raise their hopes, then by its ease, deflate them!

"It is like the One Ring itself," said L. Ron, settling back into his chair. "There is so much power in it; you can spend hours traversing its scape, and plan strategies on end, until you are as that miserable creature there." He pointed to Gotham. "And for what? Where is the balance, the integration of key elements?"

The non-plussed Boroughmayer tried to rally. "These are the words of the inveterate quester. Why judge this game as if it came from Lord British? Why can't it exist on separate levels?"

"Clearly, for you, Boroughmayer, it does, and well," said L. Ron. "As for me, it is full of heroic character, but with a tragic flaw."

Then Gandolf made a bold proclamation. "We must take it to Mount GEM, and there send it deep into the mouth of the great trash can." At once, all took a side. Outrage was pounded upon the table, and imprecations filled the room. Then, from out of this cacophonous matrix of men in dissent, Boroughmayer shouted out what I, at the same moment as he, had realized.

"Gotham! He's gone!"

"The game!" said Freedough. "It's...it's gone, too."

All of Reviewdell and its environs was searched, but the furtive creature made good his escape. In some bleak barrow or bog, no doubt, he sits, the square medallions of *War in Middle Earth* whirring inside a magic box of visions. Sits, rapt, with his Precious.

Note: Returning from Reviewdell, I learned more about this game from some travellers. If you have a double-sided drive, copy disks two and three onto an extended-format disk. Not only will you minimize disk swaps, but you might eliminate crashes--the game is a bit buggy. Otherwise, two drives are preferable. And when you send a party to the location of a special item, wait until they arrive before you click to the animation level. Lastly, even if this program is but a living mural, a loving tribute, and hardly a game, you may still have to own it. --M.T.



The Junkyard Pussycat



by
John
Barnes

The Junkyard is a perfect place for one who abjures fashion. Lots of stuff winds up there because other people cast it off as not conforming to the latest modes. The Junkyard Pussycat is then free to pick it up, turn it over, look at it again, and perhaps make use of it.

Spare Me From the Missionaries – A recent *tete a tete* on ARMUDIC led one of our local experts to lecture me to the effect that “A well-written GEM application is the only way to go” (when writing application programs). Indeed, one can write spiffy programs that way, but “the only way?” No way. The Junkyard Pussycat in an earlier incarnation was a victim of the Spanish Inquisition and is not inclined to accept any doctrine that proclaims itself to be the one true way.

We find such themes everywhere: “PASCAL (or Modula 2 or C) is the only language to program in,” “UNIX is the wave of the future,” “MS-DOS is a dog.”

Lots of people turn up their noses at perfectly good software because they have been preached to by missionaries who claim that the only way to talk to computers is through a mouse and that icons communicate better than words.

This attitude has undoubtedly led many people who have developed fine applications for the MS-DOS and UNIX worlds to forego porting them to the ST. I suspect that increasing use of GEM in the MS-DOS world will drive the costs of developing applications up and there will be more buggy programs. Even the big boys are having their problems with things like Presentation Manager for OS/2 and dBASE 4.

Reliance on a GEM user interface actually hinders productivity in applications in the following ways: 1) GEM applications are hard to write because they require complex data structures to define the graphic objects that they must display. 2) They waste a lot of time (and computing power) on things like following the mouse around the screen. 3) They chain the user to the console since they do not provide for batch processing. 4). They are ill suited to multitasking because they

demand so many resources for their fancy displays and they spin their wheels a lot waiting for outside events like mouse movements.

I use a goodly number of .TTP and .TOS programs. Some of these programs are ideal for productivity work because you can string them together into batch processes and walk away from your machine for a while to rejoin the real world. I think it is wonderful that Atari ST users have freedom of choice in these matters. I just wish that we had better command-line interpreters and tools for multitasking. If this be heresy, I think we need more of it to get our work done.

The lesson in all of this is people should feel free to write software that solves problems. Users who have problems to solve should be prepared to work to get their product out.

Don't Fence Me In – Lots of Atari developers ignore the fact that the products that a user creates belong to the user to do with as he sees fit. With their restrictive applications, they build fences around the user's data so that it can be used only in the limited way that the program developer envisioned while he was locked away in his little monastic cell.

Some ingenious people, like the guy who did *PICSW7*, have seen this and done something about it. In other cases, as with the *LDWPOWER* spreadsheet program, the public simply won't put up with anything less than the ability to import and export *Lotus 1-2-3* files in their native form. Database management and desktop publishing programs that lack the ability to import data that the user has created by another means are nothing more than toys.

These ideas should be extended to other areas. CAD programs should be able to import and export objects that the user has obtained from somewhere else. I'm told that *DynaCadd* does this and *AUTOCAD* and *Generic CAD* in the IBM world do it. *Maps and Legends* is an example of an ST program that provides some capability in this area. An object compiler that takes an ASCII text file and makes it into a graphic object would be a dynamite add-on for *EasyDraw*, *Athena II*, or *Circuit Maker*.

Import/Export abilities are also crucial in the personal finance area. *Phasar* desperately needs a way to import and export individual tax forms. People who have been managing their accounts on a spread sheet might be tempted to switch if they could load all of their data into *Phasar* without too much massaging.

Even game programs would benefit from an ability to import and export scenarios or pieces thereof. “Mapping” is an important feature of most role-playing games and it would be nice to have the machine produce a readable script that could be edited and read back in to allow the player to pick up the thread or take a new tack. I think this could add greatly to the enjoyment of games like *Shadow Gate* or *Deja Vu*.

Software that employs the methods described above is said to be "open." The people who write "closed" software are actually closing the lids of their own coffins because almost every user will soon discover that the software does not do everything he needs and will turn away in frustration or, worse yet, start flaming the product. Give the user a workaround that lets him accomplish something new and he will be happy as a clam.

Add-ons and the ability to accommodate them are an important attribute of the best software. Desktop publishing programs that limit the user to a small set of type fonts in a limited selection of sizes soon get tiresome. Printer drivers are an essential add-on for word processors and DTP products. The software must be designed to accommodate such add-ons and the methods for developing them should be made available to interested parties who might want to develop new products. I am still frustrated by the paucity of fonts available for *Publisher ST*. I would dearly love to see a good font for theoretical physics.

Developers should also resist the temptation to make their products all-inclusive. This one is hard because most users of "Personal" computers find it difficult to string three or four activities together to make a complete product. *UltraScript* is an example of a product that requires such an approach, and it is definitely not for everyone. However, those who can adapt to taking a series of small steps in the right direction find their creative horizons greatly expanded and their work much more fulfilling.

Word Perfect is an example of the all-inclusive approach and it is hard to argue with their acceptance in the marketplace. The costs of maintaining such a tightly integrated yet extremely flexible product and developing new versions of it are, however, fierce. People who take a more modular approach seem to have an easier time of it.

Some developers close the lids on their own coffins by limiting the choices available to the user. Why couldn't Timeworks have allowed us to send our PostScript output to a file or to the parallel port the first time around? Publishing Partner gave me complete freedom in this and I must say that it often proved useful.

What is a "Personal" Computer? – In a recent Wednesday evening love feast on GENie, Sam Tramiel stated that Atari Corp was going to concentrate on the "Personal" sector of the computing world. When I look around and see the rigs that people have at home I wonder what a "Personal" computer is. Plenty of people bring home some pretty fancy stuff from the office to run on these machines.

Is a "personal" computer one that is stripped of memory? Hardly. The most common "professional" operating system has only recently learned to recognize more than 640 k of memory and I still use laboratory

computers that have 64 kb of memory. The programs that seem to tickle the fancies of the masses tend to be real memory hogs.

Does a "personal" computer lack storage capacity? I see lots of office machines that have less than 30 Mb of disk storage.

Maybe "personal" computers are more friendly to their users than others. Actually, the big boys wanted user-friendly machines for the office but they could not afford to wait until they got them. Professional operating systems that use all of the familiar (to Atari users) tricks with graphic interfaces are coming into the marketplace.

Maybe "personal" computers are cheap computers. The fact is that, in the present market, consumers seem willing to buy Cadillacs or Volvos rather than Yugos. The cheapest computers around are nothing to be proud of. People assess value as well as price when they buy something as demanding as a computer.

Maybe applications for "personal" computers are not up to the standards of other applications. I suspect that this is part of the problem because business applications for the Atari ST tend to be less robust than their counterparts in the Mac or MS-DOS worlds. It is hard for a developer to justify a big expenditure of time and money if he is only going to sell a few thousand copies of a product. No matter how you slice it computers are not consumer products like VCR's, video cameras, or toasters.

After taking all of these characteristics of "personal" computers into account, I can't find any good reason for being interested in such a market. I get plenty of rewarding work done on my ST. I have spent major bucks on hardware and software. I would not like to see a turn away from power and quality. Just keep your nose to the grindstone, Sam.

The Empire Strikes Back – When I first started computing almost 30 years ago, I felt like a slave in the salt mines of some evil empire. I would punch tiny holes in a deck of cards and hand them to an acolyte sitting behind a little window. If I was lucky, I got them back an hour or a few hours later, accompanied by a sheaf of paper containing all kinds of cryptic remarks. The high priests of the empire would take over the early morning hours to perform mysterious ablutions called "SYS-GENs." In those days I thought that "rebooting" was something the operators did because they were inept or because they liked to watch the users squirm.

Along with the other slaves, I rejoiced when interactive computing came along because I could sit at a terminal and speak directly to the gods. The machine would even graciously store my files in its memory banks. The high priests still performed their nightly ablutions, but other people could get a certain amount of work done at the same time. If the slaves hadn't been freed, they at least worked in a more pleasant and responsive environment.

In the late 70s and early 80s, guerilla computing came along. At last, you could have your own machine on your own desk. You learned that "rebooting" was a perfectly natural function and that SYSGENs were something you did to make up for something that the numskulls who designed the operating system had missed. A lot of the mysteries were revealed.

The great computing empires hadn't disappeared. They still thrived in places where the sheer volume of number crunching and data processing demanded the most powerful processors.

I must now report that the erstwhile guerilla computers have been co-opted and they are once again placing their fates in the hands of the high priests. This time the priests are controlling things called "networks" and the guerrillas are being lured down from the hills with promises of a brave new world of instant communications and shared resources.

Networking is familiar to many Atarians who are hooked into the global kaffee klatches on GENIE or Compuserve, but these resemble real networking to the same extent that a Model T resembles a Lamborghini.

You want to send a file to someone? Ship it out over BitNet or Internet and your friend will get a message that the file has arrived a short time later. Need to do some computing on a big machine across the country? Log in to your account and hack away. Can't solve the problem on any one machine? Break it up and give pieces to all your friends. Want to mess up somebody else's work? Go right ahead if you're smart enough to fool the high priests.

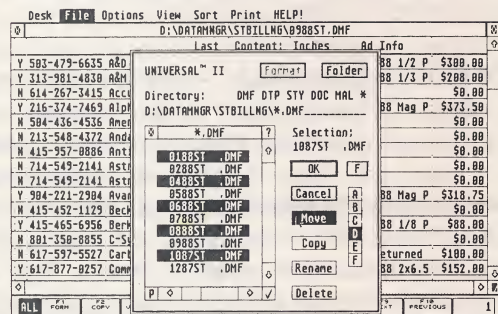
These networks get pretty complicated. Somebody has to keep track of all the nodes and branches. All of this intimacy is also too much temptation for some people. The high priests have their work cut out for them, I just hope that they are good enough to keep it all straight.

The ST (and especially the TT) would be a fine machine for a workstation in this world of networking and it would surely be nice to see ethernet hardware and TCP/IP software at a reasonable price. I just hope we get it before the Suns, Apollos, and Irises get down to prices that compete with our sturdy little game machines.

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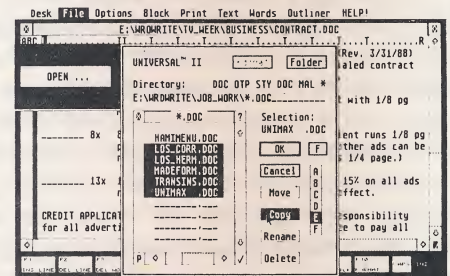
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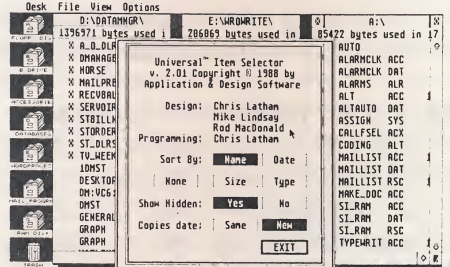
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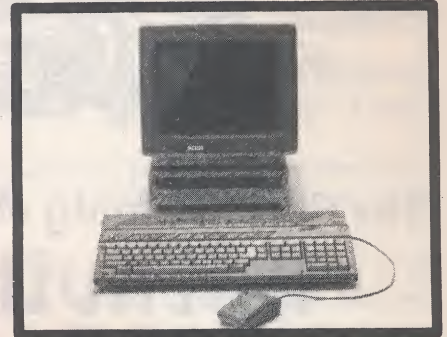
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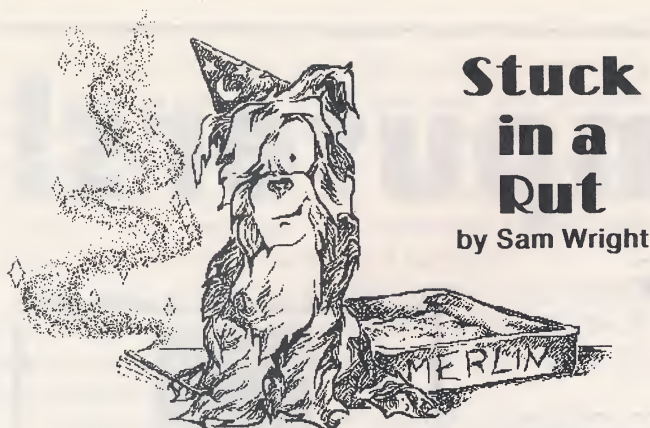
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Stuck in a Rut

by Sam Wright

The Graphic-only Adventure: Uninvited

Wouldn't you know it? In trying to avoid that thing in the road, you end up smashing your car, knocking yourself silly, and slightly denting the smug tree that broke your crash. So much for being benevolent. You awake to a splitting headache, gas leaking from beneath your car, and your passenger (your kid brother) missing.

Worse yet, the shadowy figure you swerved around was probably already dead. But that's the least of your problems: it was most likely a reject from Romero's living dead.

So *Uninvited* (\$49.95) from Mindscape for the Atari ST begins. A graphic-only adventure, you'll only need to type a few times. All other input is handled using the mouse, clicking on key phrases (examine, open, close, speak, operate, go, hit, consume) combined with objects (clicking on consume and a banana allows you to eat it).

Lest you think this makes the graphic-only adventure much easier than the text adventure, think again. With text adventures, it's just the puzzles tripping you up. With graphic-only adventures, it's the puzzles in addition to coming up with the appropriate wording...without typing anything. That in itself can be a puzzle! Luckily, most of *Uninvited's* puzzles are limited to finding keys to locked doors, deciding which objects to keep and leave behind, and how to get past certain points or obtain certain objects. To offset this, Mindscape has increased the difficulty by basically making it a linear (most of the puzzles must be solved in a certain order) game.

Uninvited contains tons of red herrings. Such as life—all you find is not necessarily worth taking (both philosophically and literally). Examining everything, however, will prove extremely useful in weeding out the insignificant objects. Be aware some problems will be left unsolved, too, for life never will contain all the solutions.

Remember to save the game every so often. Not only will you die at the most inopportune of moments, you'll want to die just to see the unique graphic effect and hear the digitized sound.

While not exceptionally hard, *Uninvited* can take awhile to finish, simply because of the time investment required. If stuck on a particular problem, move on to something else; the answer to that problem may not develop until something else is accomplished. If you're at your wit's end, however, continue plugging away at the problem. Persistence does (eventually) pay off!

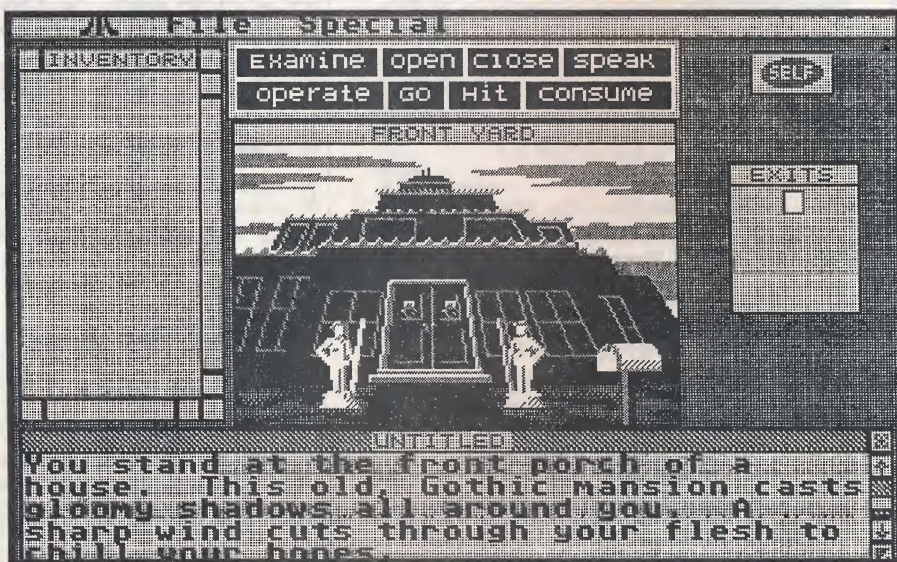
Straying away from the standard question and answer format, *Stuck in a Rut* will now be arranging the characters, locations, and objects in alphabetical order, enabling a faster find to hints and clues without reading more than you want to know. As always, it'll just be a gentle nudge or steer in the right direction—never a straight-out answer.

CHARACTERS

You'll have to face up to it: you have no friends. Everyone's your enemy. Keep your goal in mind (to find your brother and get out) and you won't begin to trust anyone. As Tennyson said, all you can do is "trust that good shall fall..."

Brother: The one exception to having no friends, but your brother's your brother and doesn't count. Follow his screams, as high as they go. When you find him, understand he may not be himself.

Creature (bouncing): All three creatures are hungry. For this one, it loves what Alfred Hitchcock made



Tippi Hedren fear.

Creature (hideous): Have you ever wanted a good, homegrown meal?

Creature (kiddie): The key phrase is that something "makes him awfully hyper." He may even be a certain kind of child-like monster, colorless due to his cold-bloodedness. Then again, he probably watches ABC's Monday Mystery Movie so he can't be all that bad.

Demon: When reclaiming his freedom, he's once again as undead as a zombie.

Dogs: Fetch the stick in the bedroom nightstand. Sit! Roll over! Speak!

Fish: Don't let Kevin Kline near it.

Ghost (Bedroom): Ghosts are more afraid of you than you should be of them. Amazing that a big thing like that can be scared of such a little thing.

Ghost (Church Grounds): Symbolically fetch the stick in the bedroom nightstand.

Magisterium: "...There are certain places you cannot go..."

Rudy Vallee: Get his autograph and use it to bribe someone.

Satan: "Specan projectum ellav ydur."

Scarlet O'Hara: She appears when you dawdle too much in the Hall. She won't appear if you dash upstairs but once she does, you'll have one move before you join her in haunting the place.

Spider (large): Amazing a big thing like that can be scared of such a little thing.

Spider (small): Who was it really that sat on that tuffet?

Zombie: Dear Master Crowley, the "undead fear symbology."

Zombies: "...but the undeads fear nothing." Leave the way you came in; there's always another way around them.

LOCATIONS

Take one room at a time when entering halls or rooms with multiple exits. Mapping isn't as crucial as other games because of the pictorial representations, but it's a good idea in case you get lost.

Ice Cave: "In ice it burns."

Maze: Trudge through carefully, mapping as you go since some of the passages look the same. Once you find what you're looking for, you won't need to go any further, but you will need to leave in one piece.

Tower: You mean you'd go to prison willingly?

OBJECTS

Read everything! The various books, notes, diaries, and other reading material will come in quite handy later in the game. Don't take everything literally, though.

Axe: Ever try sitting in a jar?

Blothney gem: Have you checked "the heart of the garden maze?"

Box (hingeless): Dear Diary, "It never opens, it has no locks..."

Cage: It's bigger than a birdbox.

Can (insecticide): A spray a day keeps the apple pretty.

Cards: Two much can be read into them.

Doll: The gypsy fortune teller is very valuable. That'll be 25 cents, please.

Flour: Planning on baking something? A great idea.

Flower: Planning on baiting something? A grave idea.

Gramophone: Let's hope ghosts don't have ears.

Jars: Who? Yes, you. Number 79 stole the cookie from the cookie jar.

Lamps and Lights: Although the electricity is off, that doesn't mean they all don't work. Some can even double as handles to other things, but if you believe that, you're all wet.

Moose: And what a trophy it is! Far more impressive than the others. And certainly not anything as lowly as a deer, either!

Pentagram: Dear Diary, match its container with the outlined one but don't erase the chalk with a knife.

Plants: Are they all dead?

Radio: Looks like it needs fixing.

Salami: It must be a century old! What could possibly be that hungry?

Star: My star is gone, but not lost/This one, though, is not to be/I can't rhyme worth anything/My job's not a card comp'ny.

Sugar: Add spice and everything nice, ingredients good for sweetening puppy dogs' tails.

Toilets: Or rather, the lack of them. Your hosts must have had strange bathroom manners.

Vial: The hotter it gets, the higher the liquid rises.

Wheelchair: Could this be the wrong chair?

If you have any comments, suggestions, or questions, I can be reached at P.O. Box 1853, North Springfield, Virginia 22151 or on the Merlin's Litterbox (FNET node 146) BBS at (703) 250-7303, supporting 300 to 9600 (HST) bauds. Message base two is now in the Adventurers' Inn CrossNet, conference code 17380 and lead by I.B.B.S. (FNET node 4) in Portland, Oregon. If your local FoReM BBS is not already part of this conference, you may request the Sysop to add into it.

Don't worry. If this doesn't make any sense; the P.O. Box is fine. If you have a question and include a self-addressed, stamped envelope, I'll get an answer back to you as soon as possible.

Next up and completing our quartet of adventure games: **the action adventure**.

STARTING BLOCK

by Richard Gunter



My Favorite Utilities

I've always liked utilities, those little programs that take care of odd jobs around the system, and are indispensable in keeping everything running smoothly. Though I've had my ST for only a few months, the utilities collection has started to accumulate, and I thought I'd share some of my favorites with you.

Floppy Disk Utilities

Three of these are disk formatter and copier programs. Since one can format a floppy disk from the desktop, why bother with a separate program to do it?

ST hardware can create several different sorts of disk formats, while the desktop formats only at 80 tracks per side, nine sectors per track. Some formats actually run slightly faster than Atari's "standard," and duping a disk can be done a lot faster than by mouse-dragging files. Hence formatter/copiers.

The three I use most are *DCFORMATTER*, shareware from Double Click Software; *HYPERCOPY*, public domain from Germany; and *PROCOPY*, a commercial product from Proco Products. Each offers something the others don't. For grins and chuckles, I did an informal speed comparison of these programs, copying a double sided disk to an identically preformatted disk.

PROCOPY is unique in that it can copy protected disks. Now, I'm staunchly agin piracy, but I prefer to work from a copy, while the original disk stays nice and safe in a box somewhere. *PROCOPY* 1.6 doesn't copy everything, but it works with most of my games. [Ed Comment: See STUpdate for comments on latest version. It also does a good

job with unprotected disks and makes multiple copies. It's the second fastest of the three (115 seconds).

HYPERCOPY is an unusual program whose documentation didn't get across the Big Water with it, unfortunately. Alone of the three, it will tell you what sort of disk you have, in case you've forgotten how you formatted it (single/double side, etc.). It's also unique in allowing you to copy all the data from a single sided disk to a double sided disk at sector copy speeds (NOT file by file). It's the fastest for a straight dupe (78 seconds), but is a little glitchy. Sometimes it messes up its own screen display, and it won't turn the drive busy light off properly. Things like that bother me.

DCFORMATTER is one of a family of products from Double Click Software, and is available to download. For documentation and other stuff, you have to register. *DCFORMATTER* has a slick look and feel, and supports making several different formats and multiple duplicates. It can write MS-DOS boot sectors, essential if you're carting disks back and forth between an ST and an IBM PC. I found it to be the slowest copier at 127 seconds.

I almost hesitate to recommend software published in Antic Publishing's magazines, only because these programs can be a bit awkward to obtain unless the magazine is still on your dealer's shelf. Antic claims copyright on what they publish. Period. A few months after publication, some of the programs will show up on the CompuServe's Antic software shelf. Otherwise, you can call Antic at (800)234-7001 and order the monthly disk you want. They'll also sell you a back issue, or

photocopy the accompanying article (for \$2) if the magazines are gone. <Sigh> Oh well, here goes anyway.

CERTIFY (STart Vol 3, #4, 10/88) and *SPEED* (STart Vol 3, #2, Special Issue #4, 1988) are two little programs by Dave Small and Dan Moore that appeared a few months ago. *CERTIFY* reads a whole floppy disk, and reports any bad sectors found. *SPEED* checks the rotation speed of your floppy drive.

VKILLER is a public domain virus killer by George Woodside. A large class of virus programs hide in the boot sector of your floppy disk, and insinuate themselves into your system from there. *VKILLER* is intended to root these things out. Unfortunately, *VKILLER* will treat any boot disk as potentially infected. Although somewhat limited, *VKILLER* is cleverly done, and potentially a lifesaver.

Hard Drive Utilities

ICD, Supra, and other manufacturers supply a collection of hard drive utilities with their drives. They range from completely reformatting the drive to enabling a hard drive autoboot. If you have a hard drive, sooner or later you'll need one of these tool kits.

TUNEUP! is a commercial defragger from Michtron. Since fragmentation is a chronic problem with all hard drives, you'll need a defragger to perform periodic housekeeping. *TUNEUP!* works well and is easy to use.

TURTLE by George Woodside is the most popular of the public domain backup programs. The latest, Version 3.0, has a new collection of bells and whistles, and comes with a companion, *TERRA-PIN*, that addresses one of TUR-

TLE's most serious weaknesses: backing up files that are too big for a floppy disk.

UNTURTLE is the inverse of *TURTLE*; it restores files and folders from floppies to the hard drive. Shareware, from Mike Matthews.

File Utilities

ARC521 is the latest version of the ARC utility package for the ST. Public domain, from Howard Chu. ARC programs allow you to combine one or more files into one file that takes up less space than the originals. All the data from each file is preserved, and the contents can be extracted to reproduce the original form. An essential utility, especially if you do any uploading or downloading.

ARCSH197 is a mouse-driven "shell" that allows you to run *ARC521* without all the dialogue box and command line silliness. If you've been ARCing without it, you've been torturing yourself. Shareware, from Charles Johnson.

FCU is a utility that I don't want to live without. It compares two files and reports the differences. Doesn't sound like much? Ever back up a hard drive and wonder if the backup is any good? Or copy a bunch of files while reorganizing, and feel that horrible nagging doubt just after deleting the originals? *FCU* can set your mind at rest. This program is a bit memory-hungry; it reads both files into memory, then does the compare. Not sure what it does if there isn't enough memory... Public domain, by Richard Morris.

LSORT sorts an ASCII file. Return/Line Feed sequence is taken to be the end of a "record." I've used this program, in concert with Word Perfect's merge facility, to sort an address list by zip, by name, whatever. Handy when you don't have a database program. Public domain, by Don Farmer.

PDIR is a public domain directory list program by Henrique Veludo. This program will trace a whole directory or selected portion and list the files on screen, disk, or

printer. Unlike most others, it can show the status byte which indicates whether the file has been backed up, hidden, locked, etc. This little beast sometimes infuriates me by bombing out in the middle of a listing--often a minor change in the directory will get rid of the abort. I use it to check on which files have and haven't been backed up recently, or just to get a complete list of all the files on a disk.

UIS II (Universal Item Selector II) has been reviewed in Current Notes. If you don't have it, get it. It's an amazingly versatile replacement for the TOS file selector. Commercial product, by Application & Design Software.

WHEREIS is another of those clever and useful public domain programs by Keith Ledbetter. Forgot where you put a file? Wonder how many copies of a particular file you have, and where they are? No problem. Point this little ferret at a drive, give it a piece of the name (with wild cards), and turn it loose. It'll search the whole partition and report all the matches it finds. It even has an option to search all ARC files as well. *UIS II* will do a similar search, but won't dip into ARC files. Besides, *WHEREIS* gives you the whole list at once.

Miscellaneous

We gotta have a category like this, right? The ones that don't fit well anywhere else?

SUPER BOOT is shareware, from Gordon Moore. I've mentioned this outstanding program here before, and just installed Version 5.5 on my system. In a nutshell, *SUPER BOOT* allows you to set up multiple system configurations, with different combinations of autorun programs, with virtually any combination of your desk accessories, and pick the one you want with a function key at boot time. In its recent versions, *SUPER BOOT* uses a little PD program, *STARTGEM*, to automatically run a GEM program after everything else is done. A most valuable package, more than worth the regist-

ration fee of \$15.

FOGGER is copyright Antic Publishing, but was available on CompuServe when I found it. It may have been published in Antic, February '87, but I couldn't find a reference in the online index. *FOGGER* runs through an ASCII file (a document, really), and computes two reading level statistics, a difficulty level, and word and sentence counts. Useful in a minor way, if you'd like to check on whether something you're writing is presented at the level you want. There are several much more powerful programs for this sort of thing in the PC world, but not much available in the ST community.

RESTART from Tom Hudson (*STart* Vol 3, #2), and *HNDYWIPE*, public domain from John Eidsvoog, perform similar functions. Both give you a way to do a cold boot without turning off power to the computer. *RESTART* runs in the AUTO folder, and sets a key combination you can use at (almost) any time. Some programs will interfere with it, though, causing the key combo to get lost.

I'm not entirely sure why one would put *HNDYWIPE* in an AUTO folder, but the documentation talks about turning on all the equipment at once, with *HNDYWIPE* sitting in a floppy disk AUTO folder, rebooting until the hard drive autoboot takes over. A dangerous practice, that. I just run it from the desktop when *RESTART* fails.

There's another class of utility programs that we don't have space for: picture conversions. Perhaps another time.

One last thing. If you have an idea or suggestion you'd like to pass on, drop me a note. I can be reached on the ARMUDIC BBS (see the back pages of this issue), by mail through Current Notes, or by CompuServe (my PPN is 70117,2565). Use *EASYPLEX* for CompuServe messages; my visits there are irregular these days.

El Cal: *Mathematica* Junior?

A Great Deal, For Far Less

By Christopher Anderson

It's taken over three years, but finally the ST is getting professional-quality tools. Programs like Timeworks Publisher ST, LDW Power spreadsheet, and Word Perfect (the latest version, at least) are at last fulfilling the promise of Atari's ambitious slogans.

Scientists, engineers, and students have had an especially long wait for adequate software. While they were among the first to recognize the potential of the machine, they found themselves increasingly frustrated by the dearth of packages capable of handling their advanced needs. In the meantime, they could either read about terrific scientific software on other machines and drool, or write their own.

One particularly enviable product available only to others is *Mathematica*, a huge, expensive, and immensely powerful mathematical toolbox for the Macintosh (and recently for IBMs and the new NeXT machine). It simply does everything ... if you're willing to pay over \$800 and wade through over a thousand pages of documentation to figure out how. While *Mathematica* will probably never be ported over to

the Atari, many potential users of the program may never miss it. The reason? *El Cal*, one of the handiest scientific tools yet created for any computer, is now available for the ST.

The \$44 program, written by J. Andrzej Wrotniak (a mathematical physicist and frequent Current Notes contributor), offers much of the utility of *Mathematica*—the plotting, curve and equation fitting, advanced statistics, and numerical calculus that are rapidly changing the way scientists and others approach mathematics. From its single well-designed control panel, *El Cal* (for Elementary Calculator, a rather dubious name considering its power) offers almost everything an engineer, student, or working scientist could ask for in a desktop math scratch pad.

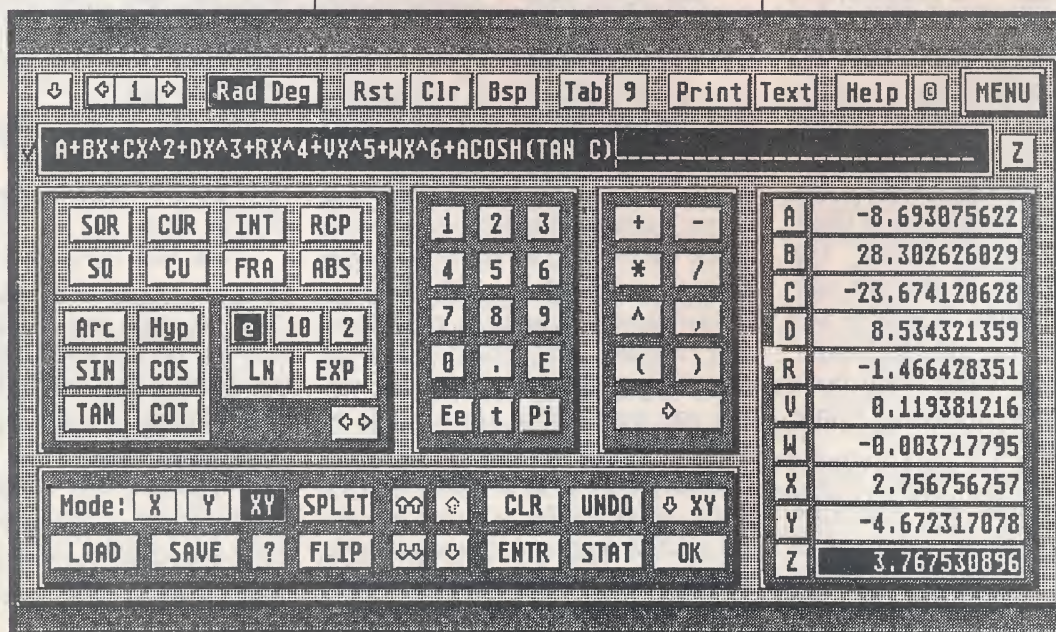
A short list of its capabilities includes over a dozen trigonometric functions, over 40 statistical functions, Euler functions (if you have to ask, you don't need them),

the ability to numerically solve any equation and find roots of polynomials up to third degree, and 12 user-defined functions. Data analysis tools include histogram and scatter plotting with line, curve and Gaussian fitting.

El Cal specializes in "what if" calculations, but in a far more intuitive way than a spreadsheet. For example, you might ask it to help with your latest study of the recent rash of Easter Bunny sightings. After some investigation, you find that 6.2 Bunnies were observed per square mile in New York, but some 1,000 miles south in Atlanta, "Bunny density" had dropped to 1.8. Other cities along the East Coast report in, and you eventually have several dozen points of data. Meanwhile, children everywhere are depending on you to predict the chance of finding a Bunny in their own town. You suspect there may be a pattern, but how will you find it?

This is the kind of mathematical exploration *El Cal* excels at. Data

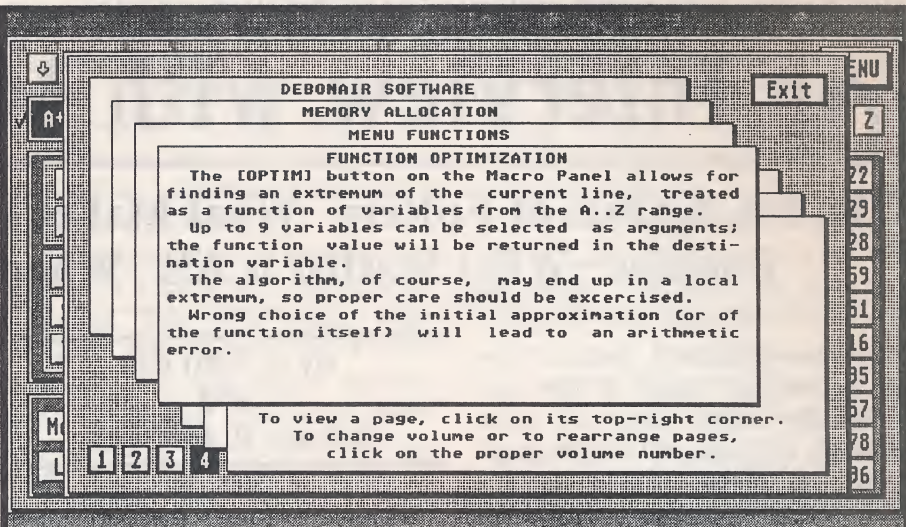
can either be read in from an ASCII file (from any spreadsheet, for example) or entered directly. Once your data is in, you may wish to graph it. Three mouse-clicks (you opt to let *El Cal* pick



the graph limits for you), and the points appear in a small window that opens over the main panel. Sure enough, it looks like there's a pattern. Try fitting it. A couple more clicks and a straight line is drawn through the points. The slope and intercept appear in variable fields to the right. A line is often adequate, but in many cases, a curve is better. Select the curve fit option and a snaking plot follows the point's major trends. The coefficients of the polynomial equation (up to sixth order) that describes the curve are displayed on the side.

Such mathematical modeling (finding equations that approximate real world behavior) is a pleasure with a sophisticated tool like El Cal. Not only does the program appear to be completely bug-free, but its elegant design encourages the kind of free thinking that is so rare in mathematical tools. Despite its support of over 80 mathematical functions, 11 independent variables, and a host of powerful macros, El Cal is as easy to use as a hand calculator.

Other features that simplify the interface include an innovative on-line help and the use of contextual overlays in the main panel. Because there are far more functions than room on the full-screen panel, sub-panels with additional options appear whenever appropriate. The help feature is equally novel. When

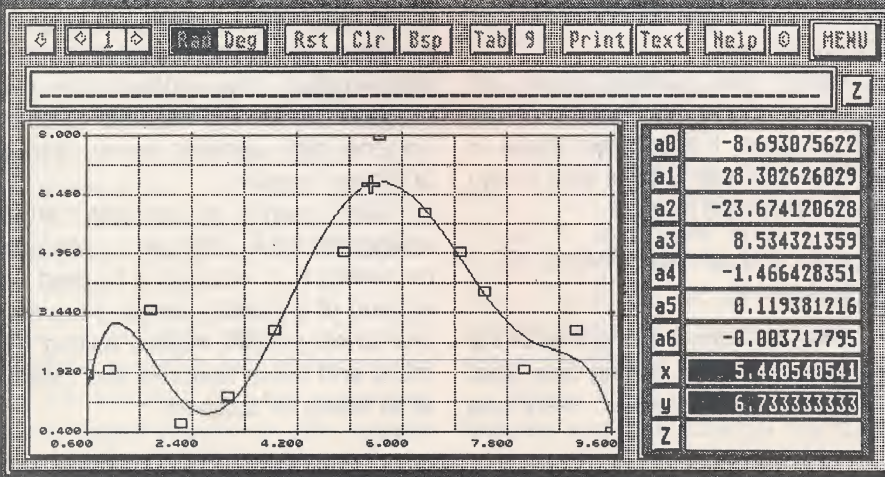


selected, a screen of overlapping pages appears with the title of each page visible above the one in front of it. By clicking the top right corner of the desired page, the user can view a particular page, then jump to another, much like the windows on the GEM desktop. This is such an obvious improvement over the standard scrolling help screens that one wonders why no other ST program has employed the technique.

Other small touches serve to speed work with El Cal. Equations can be entered as they would be written, with the multiplication sign implied (i.e. 2X instead of 2*X). Almost all work can be done equally well with the mouse or keyboard. (in fact, the mouse usage is so intuitive it may actually

be preferred, even for entering numbers.) Predefined setups, including macros and data, can be saved to disk. While the 53-page manual is well organized, with frequent illustrations and explanations, the on-screen help is so complete and easy to search that the manual can safely be left on the shelf. What more could you ask for? Well, Symbolic calculus and algebra (the ability to rearrange or solve equations in terms of abstract variables) are a deservedly touted feature of *Mathematica* that no package for the ST is yet to come close to. Likewise, the ability to solve systems of linear equations is crucial to scientists and engineers, who must currently look to other computers for help. Matrix math, a tedious exercise necessary in linear algebra, would also be an ideal application for this kind of program. According to the author, these features may be considered for a future update. In the meantime, for those of us who have been reduced to keeping a math book and a programmable scientific calculator next to our computer, this program is a must.

El Cal will run on any ST, color or monochrome. It is available from Debonair Software, PO Box 521166, Salt Lake City, UT 84152-1166. The \$44 price includes shipping.



An Interview with Matt Singer

The Ins & Outs of FoRem--What Makes this BBS Program So Popular--What Started it All--Where Is It Headed?

[Telecommunications remains one of the hottest topics of the Atari computing scene. Here are some answers to frequently asked questions about FoRem, one of the more popular BBS programs. Presented below, by a user and a sysop, respectively, is an exclusive CN interview with Matt Singer, the author of FoRem.]

Introduction

As users, we encounter BBS programs in a fashion somewhat analogous to a circus--first we buy our ticket, then we go inside and are greeted by numerous rings (menu selections), each with its assorted goodies. Over all this presides the ringmaster, also sometimes called the sysop (and sometimes other things!). The producer of one of these BBS programs is Matt Singer, the author of FoRem ST. FoRem is perhaps the most widely used program on Atari bulletin boards around the country. Sysops like its versatility in security levels, message bases and file areas, the excellent technical support, and its continued development. Users like it for the utility of its message bases, networking capability, file transfer protocols and its command stacking feature.

The FoRem name originated with your 8-bit Atari BBS programs. How did you come up with the name FoRem?

FoRem stands for "the Friends of Rickey Moose" where the E in FoRem is the E in Rickey. Some people have used E as a middle initial, but that is not right...

**By H. Earl Hill
and
Dennis P. McGuire**

Where did it come from? I have had that asked so many times that it is hard to keep the story straight. Back in 1982, when I first started running a board, the local boards (DC area) had names like "The Pirates Cove" and "NWDS Lights and Magic" (I think it was). The justification I use for FoRem is that I pronounce it Forum and there was a BBS for the TRS-80's called Forum 80.

But the real origin of Rickey Moose is from my days doing sound and light work for various bands in the DC area. One such band had a guitar player by the name of Richard Worshner. One day for some reason the name "Rickey Moose" stuck to him. We later had official Rickey Moose fan club memberships on the back of our business cards and a rather large "moose sign." Rickey Moose always had rather bloodshot eyes from partying a bit too much. After a while it just started taking on a life of its own...

When I first starting giving out copies of the 8 bit version of the BBS program, the program name of the disk was just BBSxx.BAS where xx was a version number.

Why did you develop FoRem ST in the first place?

Why did I develop FoRem in the first place??? Well, a long time ago; in a galaxy far, far away.... there was

a program distributed by the MACE group called AMIS, which stood for Atari Message and Information System. (At one time, FoRem was going to be called AMUSE for Atari Metropolitan Users Software Exchange). Now, this version of Amis that I got my hands on was nothing like the more recent ones.

Sysops could not log on locally. They had to call from a friend's house. The sysop could not see who was on or what he was doing. If it crashed, the only way to know it was if someone called and said so. It had no protocol file transfers; it could only upload text files, and download files were limited to being typed and could not be longer than about 7K bytes...

I thought this was rather limited and just started hacking on it and adding things I saw on other BBS's that I liked. There used to be a board in DC called "Washington Networks" which ran on an Apple II that I really liked.

Bill Dorsey (now with AMGEM) who wrote one of the first sector copiers for the 8-bit machines, was a big help and supplied the original machine language routines which accelerated the output to the modem. When FoRem was written, no one had anything faster than a 300 baud modem.

After a while, people just started asking me for it. I had never planned on selling it. It was just a hacked up version of a public domain program. But when people started asking for more and more features and calling at all hours for support...

How did your background lead to the development of FoReM ST? Was FoReM then and now essentially a one-man effort?

My background is not really related to FoReM at all. I have a BS in Audio Technology and Physics, although I do program for a living now. It is not what I wanted to be doing when I started all this.

FoReM for the 8-bit was mostly a one man effort with Bill Dorsey doing the machine language (26M version only. I did the ML for FoReM XL/XE) and a lot of input from a guy by the name of Bill Cummings who is servicing medical equipment someplace in Chantilly now. (His wife made him give it up...)

FoReM ST was initially a port of FoReM PC which I wrote in 1984 after I married and my wife bought a PC. FoReM PC was actually started in Fortran and then got switched to Pascal when Turbo Pascal version 2.0 came out. FoReM PC and ST are 100% authored by myself. (With the exception that some of the file transfer routines are from source code released into the public domain).

How long did it take to develop the first version of FoReM ST and when was the first version released?

The first version of FoReM ST was actually ported from the PC in a fairly short time. I got my Atari ST in July of 1985. The problem was that Atari didn't ship my hard disk until January, 1986 (which I had paid for in full in April of 1985)...

Once I had the hard drive, I had the BBS running in just over a month. But this wasn't writing it from scratch. It was just transliterating Pascal to C. The C version now compiles 99.9% the same on both the ST and PC. So, I guess the first release started going out in March of 1986.

What is the latest version of FoReM and what protocols does it now contain for file transfer? Do you expect any future improvements in file transfer protocols?

The current version of FoReM is 2.3, compiled on November 24, 1988. It supports the following file transfer protocols:

Xon / Xoff Xmodem Xmodem CRC Xmodem 1K block (also known as Ymodem) Ymodem Batch Ymodem G Batch Sealink Compuserve B Fmodem Zmodem

Fmodem should probably be explained a bit. When US Robotics released the HST 9600 baud modem, the current file transfer protocols did too much direction switching to take advantage of the real speed of this modem. The IBM world came up with Ymodem G, which basically is Ymodem where the sender does not wait for an acknowledgment before sending the next block of a file. The problem with this is that it requires that the computer be able to use CTS/RTS hardware handshaking. The non-Mega ST ROMs do not handle this properly. Therefore, I came up with Fmodem which sends a block equal in size to the 4K bytes of internal buffering in the HST. It should not be used with non-HST modems. Although in reality, newer protocols such as Sealink and Zmodem are much more efficient.

I currently do not plan any new protocols. Zmodem fits almost all current needs. A couple of people have asked for "Fast Compuserve B" and "C-Modem," but I don't have specs on them. FoReM Elite will not have any built in protocols. All file transfers will be through external programs, so anyone can use as few or as many protocols as he likes.

What numbering system do you use for version numbers?

Version numbers are a funny thing when a program changes as frequently as FoReM does. I use a "version number" and a release date. There are about 7 different release dates for FoReM 2.3 due to minor changes or fixes.

Many times, I will add new features and only change the date.

The reason is so that I don't get 500 people asking for a new version when changes are minor, or people complaining that there are too many new versions. I only change the version number when there are enough changes so that I think someone with an earlier version would want to update. This means that the last version of 2.3 will be just about the same as 2.4, but someone who has the first 2.3 will probably want to upgrade.

I realize this is not a very good way of doing this, but when someone comes up with a really good idea for a new feature, I hate to wait 3 months or so before releasing it. Anyone is welcome to update to a newer release of the same version simply by returning his disk. He can also have access to downloading the latest and greatest by paying an annual support fee.

Are there any limitations to the type of computer (say 8-bit and 16-bit) that can access FoReM? Is ATASCII emulation still used?

Any computer/ terminal except teletypes can access FoReM. FoReM still does limited 8-bit ATASCII translation.

What would you say are the pluses of FoReM ST relative to other BBS software for the Atari?

I can't comment on other BBS's as I don't call them. I called one BB/ST board about 3 years ago and couldn't figure it out so I gave up (and people say FoReM is hard to use!)

What have been some of the most difficult bugs to overcome in your programming development of FoReM?

The only bugs that have been hard to fix are those that don't show up for everyone or all the time. For example, every once in a while it will tell a user that he doesn't have enough time remaining to download a file, when in fact he does. It only happens on occasion and in three years I can't understand why.

Is FoReM compatible with the new background file transfer product, Shadow, from "The ANTIC Catalog?"

I can't say. I am not familiar with "Shadow." I try to avoid Antic. I don't approve of a magazine competing with its advertisers.

There have been occasional comments from users of FoReM boards that FoReM is too complicated. Would you care to comment on this?

I find it hard to believe that FoReM is hard to use. I will grant you that it doesn't come up with a menu at any function, but at almost all functions, hitting return or ? will display a menu. To me, from the main menu, pressing M to go to the message system and then R to read and F for forward is not all that hard to understand. F for file system and then L to list or D to download seems quite reasonable... or M/A to read all new messages... What is so hard??? I guess someone who is used to the "room" system of BB/ST or an Opus board may have a hard time, but FoReM has used the same basic commands for six years and it is based on the commands Amis used, which I think was based on CBBS.

Can you say something about what computer language the recent FoReM versions is written in? Did you use different languages during the evolution of FoReM?

FoReM ST is currently compiled under Mark Williams C which I like because it is very "Unix like." Originally, I used the Atari supplied Alcyon C which was quite a dog.

FoReM PC was originally written in Digital Research Fortran 77, then Borland's Turbo Pascal and now it runs the ST code compiled under Microsoft C 5.1.

FoReM 26M was in Atari Basic; FoReM XL in OSS's Basic XL and FoReM XE in OSS's Basic XE.

How does FoReM determine what baud rate and terminal parameters a caller is using?

First, FoReM attempts to read the modem result code. Based on this, it sends the "Hit Return" prompt at the baud rate it thinks the caller is at. When it gets a key back it checks to see if it really was a return. If not, then it uses another method which is... Set the baud rate to 2400. Get a character. Based on the bit pattern, determine the baud, send the prompt and see if we get a return this time. Even parity is determined by seeing if a 141 or 13 is returned.

Is FoReM available in languages other than English? Or to put this question another way, is FoReM being used in any other countries in a foreign language version?

FoReM is only in English. FoReM Elite will have all the program text in a file so it will be more easily customized. FoReM is in use in: Australia, West Germany, Great Britain, Holland, Italy, France, Canada and of course the USA... I don't sell enough copies of FoReM to justify paying someone to translate the manual.

How and when did the concept and use of command stacking originate in FoReM?

Command stacking has always been in FoReM PC/ST...

How many graphics modes and ASCII screens does FoReM support? Are there plans for more?

FoReM can support up to 10 different user selected menus. Some sysops use this for 40/80 columns. The most popular menu types are Atari ST VT52 color codes, Atari 8-bit character graphics and IBM PC character graphics.

What is the minimum system configuration necessary to use FoReM? What would be the suggested system configuration?

The minimum configuration is an Atari 520ST, with two floppies and an auto answer modem. Although you'd really have to be

masochistic to run FoReM with floppy drives. A hard drive is really a necessity to have a system you would enjoy running. FoReM will support up to 16 hard drive partitions.

With respect to the previous question, how long would it take a sysop to set up a FoReM BBS with the extremes of configuration?

It shouldn't take more than an hour to set up FoReM, depending on how much editing you do to the system text files. Setting up the network mailer and online games can be time consuming.

We understand that FoReM has two message types. Could you discuss their general setup and the reasons for this?

FoReM has three types of messages with two variations for each. Normal, Extended and Fmail, which can be either normal or extended. The only difference is in how the message is stored. A normal message is one that is 20 lines or less long. Its text is stored in a record within a large message data file. An extended message has its text saved as a regular ASCII file. Both methods have their advantages.

Accessing files is a lot slower than reading from within one large file. Using external files allows longer messages and the use of external editors such as Emacs.

Note that this will not be the case in FoReM Elite. Elite will have all messages in files. Each message can be up to 14K long. This is to keep the system compatible with the Fidonet.

You are currently working on FoReM Elite which will include multi-line access. What other new features do you plan, and when will FoReM Elite be released (be conservative!)?

Elite's main claim to fame will be multi-user access. Either one modem and local logon, or local and up to seven modems using the Nite Lite interface, although the ST really doesn't have enough horsepower for more than three lines.

Other features will be: external file transfer protocols defining main menu commands to external programs, sysop definable system text, Fidonet compatible messages, complete line length text formatting. Increased sysop control over where things are on the disk, message system subcategories, "sysop" privileges for each message, and file area Dumb user mode, with such things as hot keys, always displayed menus, and simplified commands.

I feel that as far as built-in features go, FoReM is pretty well played out. The growth (other than multi-user) resides in linking to external programs.

FoReM Elite will be released in January or February, 1989. Testing of it started in October. As you can see by that time frame, I hope to have it virtually bug free before it is generally released.

The multi-line serial port adapter for FoReM Elite is apparently also used with the Nite Lite BBS software. Who is the manufacturer of this hardware? Will it be available only with FoReM Elite or also be sold separately? Will the Nite Lite software continue to be sold? Will FoReM Elite be available without the hardware for single user systems?

FoReM Elite will use the Nite Lite Box. It will be available from either myself (Commnet Systems) or from Nite Lite Systems. FoReM Elite will work without the box for a one modem + local logon system.

How much time do you spend per week on FoReM? How is this time split between technical support and new development?

When I'm not playing with new features, I probably spend only an hour a night returning phone calls. When I'm developing, I sometimes forget what my wife looks like. It can be difficult doing this as a one-man, part-time operation. Things really get difficult when I have to travel for my "real job."

The FNET message networking capability is one of FoReM's most powerful and popular features. Could you explain how FNET and Crossnet evolved and what we can expect in the future?

Fnet came into being in the spring/summer of 1987. A number of people were asking for it, but I really didn't want to spend the time on it as I actually thought its potential was rather limited. (I was wrong). I put up a message asking if anyone would like to work with me on it and David Chiquelin said he would. This was encouraging as he had already written some Doors programs which looked to be well written. Anyway, you really should talk to him about it as it is his baby.

The distinction between Fnet and Crossnet is that Fnet is how messages get transferred. It was mainly designed to automatically send out person to person private messages and files from one BBS to another. Crossnet is an expansion on that where a group of BBS's share the same message areas and all messages on each are transferred to others in the group. Crossnet was written by Ben Roth. Another system named MooseNet is being developed by myself and a programmer in Holland. This does effectively the same thing only with fewer restrictions and less maintenance.

The future will bring FidoNet/Echomail capabilities to FoReM. The next major release has a message base system that is file compatible with FidoNet, so once a file mailer and some other utilities are ported to the ST, FoReM can merge into the Fidonet. FoReM on MS-DOS machines can already be on the Fidonet.

How does the popularity of FoReM ST compare to the IBM PC version. Are the networked message systems compatible?

FoReM ST sells more copies and there are more of them being

run than on the PC because there is less competition in the Atari ST market. The network file systems are compatible and Moosenet being on both machines acts as an echomail gateway sending to the ST. With FoReM Elite, the distinction goes away as FoReM will be Fidonet compatible.

Thank you for your candid, forthright, and honest answers. Do you have any final thoughts you would like to share with CN readers?

As a matter of fact, I would like to make a few comments... First off, I'd like to thank the sysops who have been running FoReM since the early days in 1982. There are a few who have been putting up with me and with some demanding callers for quite a while.

Second, I thank the people who have added on to FoReM, making graphic menus, Doors games, sysop utilities ... and especially David Chiquelin who wrote the Docs for Version 2 and the Fmailer.

[Ed. Comment: Subsequent to the above interview Matt Singer announced:

- He will continue to support FoReM ST 2.3 and correct any bugs which are reported to him by registered sysops. He does not plan to develop FoReM 2.3 further or incorporate any additional features.
- The PC version of FoReM Elite is up and running on Matt's BBS (508-877-8756). Multi-user capability is working.
- He plans to release the Atari ST version of FoReM Elite in the first quarter of 1989. Call the FoReM support BBS (sysops only) directly for current status or bug reports. Please call after 6 PM E.S.T. if you need tech support.]

FoReM ST, \$74, Commnet Systems, 50 Eaton Road, Framingham, MA 01701. 508-877-0257 FoReM Support BBS - 508-877-8756.

AWAITING THE ULTIMATE

Is UltraScript PostScript?

Review By Frank Sommers

Attention Font Fanciers!

For those of us who have waited and hoped and even tried to cajole Atari into allowing our Atari laser printer to act like the "Rhett Butler" of the font world, the moment is now.

Atari and Imagen Corporations are now jointly marketing *UltraScript*, the PostScript emulator for the Atari SLM804.

Be assured, it is not without some tremulousness that you commence "installing" the program. Will it measure up? Will DeskTop-Publishing for the Atari suddenly find its place in the sun; its moment of fame, if only for 15 minutes?

Getting It Up

Your first reaction is, "Thank, God," finally we are done with that monster of infidelity and instability, the fickle GDOS. Those of you who have lost sleep and several days trying to install an application that uses GDOS will understand. Those of you who have been asked if you have mastered the dreaded GDOS will smile, "You never master it." (Douglas N. Wheeler has done an excellent piece on GDOS, entitled "All You Wanted to Know About GDOS (And More)"; it is contained in a doc file on the G+Plus disk, and likely on CompuServe and GENie.)

So how complicated is it?

First, you re-install your application that you wish to use *UltraScript* with, say *Publisher ST* (purportedly it will also work with *PageStream*, *EasyDraw*, and *FleetStreet Publisher* but we can't confirm that). The ease of doing this may be disturbing to old hands.

With but two new responses, as you feed in the *Publisher ST* disks on demand, you've arrived at the moment of truth, running *Font Width* to measure your fonts for either Monochrome or Color screens. The two new responses, are, "Yes" when asked if you have *PostScript* and "*Laser Writer Plus*," when asked what kind of printer you have. (This is the driver substitute you use for your SLM804. There are currently no drivers for dot matrix or DeskJet printers, but reportedly they will be forthcoming.)

Once the fonts are measured, per the screen message, you reboot. One more step and it's done. (Obviously, we are relishing the ease of this all; likely because after two days, we've only been able to jury rig an installation of *FleetStreet Publisher* to get it to print by itself, much less with *UltraScript*.) And that one more step, is simply taking the file "PRINTER.SYS" off the *UltraScript* program disk and placing it in the GEM.SYS folder of your *Publisher ST* folder. You are ready! (Those of you who use *SuperBoot* as a utility to load your auto programs and accessories, of course, will have to take the *UltraScript* "ASSIGN.SYS" file up and place it in the *SuperBoot* folder inside your AUTO folder, and rename it as you wish.)

Printing It Out

You are aware of a certain eagerness within you, a curiosity to know what the difference in quality will be, if any. You quickly load an old DTP test file into your *Publisher* application and tell it to print it out.

It doesn't. After about the time it should have taken to send the data to the printer for a normal one or two page document the cursor turns from bee back into arrow, but nothing emits from your mighty laser.

With a shrug and a perusal of the documentation you glare knowingly. The "PRINTER.SYS" file you placed in the GEM.SYS folder "printed the file to disk." Shutting down *Publisher*, you open *UltraScript*, and a menu asks you to "ADD NAME," obviously the name of the file to be printed. With a touch of arrogance you use the loading menu of *UltraScript* to dig out the "PUBLISHER.PS" file that was written to your *Publisher ST* program while you thought you were "printing" the test file. You load it into the *UltraScript* and click on the print command. After a wait equal to about twice the time it might take to print the same item on *Publisher*, your laser whirs into action and two pages of DTP roll out of it.

Atari Has Done It

A quick comparison of the same document printed normally and then with *UltraScript* generates a rush of satisfaction. The print is darker, richer; somehow it seems bigger, although it takes up no more space on the line, and it has more depth to it. Side by side, the specimen printed normally looks slightly out of focus compared to the *UltraScript* version. The fills are no longer faded, but just as you selected them. Underlining now can be seen; before it was distant wisp. Lines are darker and sharper. In-

deed, those who told you that *PostScript* was the only regal font generator seem correct. And finally Atari has it for their laser!

Drawbacks?

For the most part they are minor, unless you are a big volume producer, constantly checking the printed product to see how it looks after editing and making corrections. The time difference is something less than three to one, if you clock it from the time you click print in *Publisher ST* and get your document and if you do the same thing for the "ultimate" version. That add on includes having to do it first in *Publisher ST*, then loading in *UltraScript*, then going back to *Publisher* for the "Publisher.PS" file and waiting for it to finally print out. By no means prohibitive. And certainly all interim proofing and checking can be done in normal *Publisher*, and then the final copy run through *UltraScript*. What is prohibitive in time consumption is using this program to print out a document you have scanned in high resolution, say 200 or 300 dpi. The time frame in *Publisher ST* expands from one or two minutes to halves of hours, and in most cases at that resolution, with a graphic included, it simply bombs out on you. But note that a graphic of that high a resolution also bombs out on simple, non-*UltraScript Publisher ST*.

Cost?

The whole package, both program and two fonts plus the

separate font package, knocks you back \$525 list. A whopping sum, you might say, or at least we do.

the package for people who already have their Atari lasers, points out, there is an intermediate font pack-

age less than half the \$295 figure with two font families, Helvetica and Times, or a total of 13 type faces, to get you started, so to speak, for \$130. Then later, when you lust after ever more, you can get the other five families, with 22 font faces for \$195. (A final note on families versus font faces, the latter in this group represent roman, oblique, bold and bold oblique faces for each of the families.)

For those of you who decided to avail yourself of the March Atari DTP whopping \$3,995 promotion, beside your Mega ST4, your SLM804, your mono monitor, your 30 meg hard drive, and your Timeworks DTP program, you also got the complete *UltraScript* package, almost for free. The other excellent buy was the SLM804 with the complete *UltraScript* for \$1,495. Again, Atari was figuring out ways to make it less drastic financially.

So while the price is high, the excitement of being able to desktop publish with your Atari laser in PostScript is possibly slightly higher. And the "printing to disk, exiting, returning, and then printing again" will presumably be abbreviated as software houses modify their programs to run *UltraScript* directly. (Reports that Timeworks is already doing that for *Publisher ST* are, unfortunately, incorrect..)

In a phrase, Atari now has a DTP package that is soon to equal or beat the best of them.



But they have ways of easing the pain for the font addicted.

First, the program along with what is basically two font families, Lucida and Courier, along with a Hebrew typewriter font and a symbol font, costs \$230. You still don't have any of the Adobe PostScript fonts. You can then get the seven PS font families (Times, Helvetica, Helvetica Narrow, Palatino, Bookman, New Century Schoolbook, and Courier, plus a single type face of Zapf Chancery [an old English style font]) for the tidy sum of \$295. But as Imagen, which distributes

Elite:

An Old Standard Comes to the ST

Review by Milt Creighton

An Old Favorite

Elite, one of the more popular 8-bit space faring games from Rainbird, has come late to the Atari ST. I remember buying the game for my old Apple][three or four years ago. It was an impressive package: a 64-page manual, quick-key chart, ship identification chart, a novella setting the stage, and assorted membership forms, registrations, and warranties. Even the disk had a really neat game label. It fairly had me quivering in anticipation. I slipped the disk into the drive, loaded the game, and set off into the world of *Elite*.

It was a short journey, however, because the learning curve for this game, particularly the ship controls, was a little steeper than I wanted to climb. Even now, it has taken nearly every threat in my editor's repertoire to get me over the hump and into somewhat calmer waters.

One of the first things you notice about the ST version is that it doesn't come with all the paraphernalia of the Apple version -- no novella, for example. While there is no real reason for the storyline in the first place, it's a fair indicator of what's missing in the rest of the program.

Elite is a peculiar mixture of arcade and strategy, enormous in scope in some respects and disappointingly thin in others. To begin, you are given a medium-class trader (called a Cobra Mk III). It is equipped with forward firing pulse lasers, three homing missiles, defensive shields powered from the ship's energy banks, and can carry 20 tons of cargo. It isn't a bad ship to start with, and there's plenty of room for growth as you progress in the game.

Your mission is to make money (to buy new weapons for your ship) and to increase your pilot rating to the exalted "Elite" level by defeating pirates, bounty hunters, alien invaders, and sometimes even the police. Along the way you are offered a few special missions and once you ultimately reach the exalted status of "Elite" you are given a final mission which basically ends the game: you must defeat in single combat your father's murderer who also happens to be an "Elite" warrior.

Making \$\$\$\$\$\$

There are several ways to make money. You can become a simple and honest trader, hauling goods from one planet to another. The trick here is to buy low and sell high on the other end, or your career will be less than successful. In order to be successful, you need to study the worlds which might become customers. You can access your computer's data base and learn about a planet's technology level, the dominant species on the planet, its predominant form of government, its overall wealth, and whether it is an agricultural or industrial planet. By balancing all these factors you can get some idea what might sell for a profit at your destination.

The scale of the game is indeed massive. There are over 2000 planets in the eight galaxies over which the game is played. The galactic map is daunting to behold. In practice, however, interstellar navigation is easy because your ship is capable of making only a 7 light-year jump before it must be refueled (except for one-way travel between galaxies). Your des-

tinuation is therefore limited by your fuel range and you will work mostly with local star charts. All you need do is click on your destination and, once outside of the space station, press "H" to initiate the flight through hyperspace.

Career Choices

The other ways of making money are a bit less savory. You can become an asteroid miner, a bounty hunter, a pirate, or a smuggler in contraband items. Combinations of several professions are possible, but the mining really isn't practical because you will constantly find yourself having to fight off attackers just as you've nearly run down a decent chunk of ore-laden asteroid.

Once you've chosen a profession you need to outfit yourself. Since you only have 100 credits to start the game, that won't get you very far. You'll have to earn about 1500 more before you can go into asteroid mining and even more for smuggling. On the other hand, you can go right into bounty hunting or piracy; but if you do your career is apt to be nasty, brutish and short. You'll need much better weapons to have any hope of being successful. These factors combine to push you into the merchant role in the beginning. You'll have to visit the marketplace and purchase the little cargo your 100 credits will buy after carefully selecting your destination.

Now, are you ready to leave the safe haven of the space station? Before you do--SAVE THE GAME! You can save the game in RAM and then reset back to the saved position whenever you want or save to disk under the

name of your captain. Make it a habit to save the game often in the beginning. Now, have the station launch your ship into space? It is at that point that the game really begins.

Not Exactly Easy

Not yet. You still need to learn to fly your ship. This is one of the most difficult feats I have ever had to accomplish for a game. Yes, you can and should use a joystick, although it is possible to use a mouse or the keyboard. The flight controls are dive, climb, roll right and roll left. No, you don't turn left by putting the joystick in the left position. Instead, you rotate the ship until the direction you want is above or below you and then climb or dive toward it! It's maddening at first and makes for quite a lot of white-knuckle flying.

Docking is a Dilly

Before you go anywhere you need to learn how to dock with the space station, because all trading in the game is done at the station. (It's not possible to visit the planets themselves.) Learning to dock is frustrating. In fact, my wife offered to pay me to stop trying. She also suggested I take up golf again, since she thought my language might actually improve. The problem arises because the stations are mostly dodecahedral designs with only one face having a rotating entry slot. This is always the face which faces the planet and the slot is fiendishly narrow. That makes for a lot of crashes as you try to match your ship to the rotation of the station and then fly through to the interior. Just accept the fact that you need to learn this and put in the practice time until you can do it fairly regularly.

Once you've done that, you've really won your wings and are ready to make your first trading trip. Entering hyperspace, you warp your way to the star system you

have selected. This is probably a good time to mention the graphics implementation of the game. They have been greatly improved from the 8-bit versions of *Elite*, but they are still uneven in quality. The planet displays in the databank and the representations of the dominant lifeforms are excellent, as are the trading and equipment icons. The solar systems all look identical, however. One crude green circle always represents the single planet in the solar system and a yellow one represents the system sun. The stars are merely white pin pricks on a black background. The ships are quite well done and the space stations are decent, but you are rarely close enough to see them. In general, the graphics are merely adequate overall and do not by themselves interfere with the game. The hyperspace rings are an exception: they are acceptable the first time you see them, but after the 100th time you've warped out, they've really lost their charm.

One of the biggest criticisms I have about *Elite* is the amount of real time it takes to get anywhere. You can grow old and die in real life just making planetary approaches. Yes, you can make in-system jumps, but they are rarely possible under the present rules. This is a major drawback of the game as far as I am concerned. Of course, it is during planetary approaches that you encounter the bad guys, but there is certainly a better way to handle it than the present setup.

Combat is probably the best part of the game right from the start. Turning, twisting dogfights, lasers pulsing and overheating, shields flaring and failing, missiles to be avoided or targeted, the smell of sudden death in the air. It's great! The computer opponents are clever and seek out your weak spots with devilish cunning. There are quite a variety of them, too.

There are some 18 different ship types in the game from the police vipers to the massive anaconda freighters to the super fast mambas and the deadly thargoid invasion ships. Each ship type is different in design and each has a distinctive shape. You'll eventually get an idea which ones you'll have to particularly respect—usually by taking them out first! One thing I do not understand, though, is why it is rarely possible to outrun a slower opponent.

If you win, you still have to seek out the orbiting space station and (argh!) dock with it. It is a miserable feeling to fight off waves of pirates and finally bring your cargo into port only to destroy yourself against the walls of your safe haven.

It's probably a good idea to buy a strap-on cargo container as your first purchase, then a docking computer (thank god!) and then an energy bank recharger. Later, as you make more money, you'll be able to add truly awesome military lasers, ECM suites, energy bombs, a cloaking device (if you can find it), and lots of other neat stuff. Reading the descriptions of the equipment you can purchase at the space stations in the manual really fires your imagination. The specs of most weapons are included and each has a brand name. It makes for interesting reading, but is ultimately only a reminder of the uneven depth of the game.

Avoid Contraband!

With each win your reputation grows. Your combat reputation grows as you accumulate kills, and your criminal record grows if you engage in illegal activities such as piracy, accidentally shooting a legitimate ship, or carrying contraband goods. You can even fall into illegality by salvaging contraband cargo from a ship that attacked you!

In general, the trading aspects of *Elite* are somewhat rudimentary. The game is clearly designed to emphasize combat over the more strategic overlays which tend to be thin at best. As a result, *Elite* is a very good combat game in the beginning of the game—one of the best, in fact. However, the lack of strategic goals within the context of the game removes the only real incentive to explore. Once you discover a lucrative trading situation, the tendency is to remain there. In addition, the new items you buy come without operators' manuals which describe their uses and limitations. That unrealistic situation tends to undermine the illusion of depth so painstakingly crafted by the game manual.

What's the Goal?

At the more advanced levels (by the time you've managed to equip your ship with fore and aft military lasers, extra energy, and retrorockets) the game becomes pretty boring. You can kill off nearly any number of killers by forcing them into a stern chase while pounding them with your aft laser. Yes, there are special missions, but I have no clear idea of how or why they come about. They aren't melded into the fabric of the storyline the way the missions are in *UNIVERSE II*, for example. As a result, they have almost no impact on the overall play of the game.

The Bottom Line: The real hallmark of any game is whether it holds your interest for a sufficient

period of time to justify its expense. *Elite* is a puzzle in that respect. Two years ago it would have commanded a loyal and enthusiastic following, but today the ST is a mature machine, and, unfortunately, current computer gaming standards have passed it by. The game is clearly a throw-back to an earlier generation with some nice graphic camouflage added as window dressing. Unfortunately, its 8-bit roots still show in its basic structure. It has many very fine features, not the least of which is its superb combat system, but its lack of strategic depth will ultimately limit its long-term appeal.

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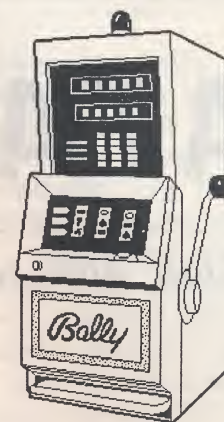
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HOME CASINO

Read 'em And Weep

Review by Don Elmore



Home Gambling

Omega Soft of Harrells, NC has come up with a right nice little home gambling casino program. Games included are; Draw Poker, Stud Poker & Blackjack. I found the games to be quite sophisticated and user friendly (even though a bit on the complicated side from a "playability" point of view). So, get the eye shade out and join me in an overview of the wide variety of poker and blackjack that can be played.

My Perception

Guess I had better start with what I found to be on the negative side. I have enjoyed many a game of Draw Poker from my misspent youth to date....what I have yet to enjoy is the One-Armed Bandit type of poker games, where you deposit a coin, are dealt a hand electronically and then you are allowed to draw to that hand and are paid according to the strength of the hand...so much for a pair, more for two pair, etc. Unfortunately, Home Casino uses that type of game for the Draw Poker portion of the program. You cannot play against opponents, nor even against the computer, the only option is to deposit your money, exchange whichever cards you want and get paid accordingly. I would have preferred a screen full of opponents, like Omega Soft furnishes in the other two games. For those of you who like the poker machines, kindly direct your attention to the first sentence in this paragraph...it is my perception. But, if the poker machine concept is your bag of tea (tea?), then has Omega Soft got a treat for you. I don't know how they managed to do it, but they have placed four separate poker machines on the disk (side by side). Four different players can play Draw Poker with beaucoup options. One can play with no wild cards, a second with deuces wild, a third with the joker wild and the fourth with both the joker and deuces wild!

Another Concern

Only one other facet of the gaming bothered me at first. I mentioned earlier that the program is complicated but user friendly at the same time. The reason for that is that up to four players can play. Omega Soft accomplishes this by using two joysticks and two "Keypads," or four "Keypads." Each keypad consists of a cluster of eight keys located together on the keyboard, to control the different functions in each game. For example, Keypad A is made up of the "Z, A, S, Q, W, 1, 2 and 3

keys. "Z" is the Deal key, "S" the Option, and so forth. It takes a little bit of play to master the clusters of keys that make up the keypads.

The joysticks are much easier...and I can't even really call this particular facet a negative one, it is about the only way that four different players can play. Just takes a little getting used to.

"Professional" Players

So, on to Stud Poker. Now, we have the option to play opponents. As with Draw Poker, four players can play Stud Poker in any combination of human and computer players. In addition to the poker machines, Omega Soft has somehow crammed six "professional" Stud Poker players onto the disk, waiting to be called up to play against you. So, you and a friend can play two computer players, or you can play three of them, or three of you can play one of them and each other...you get the idea. And, that's not all. You have a variety of Stud games to play; Five, Six or Seven Card Stud (sorry no low ball!); and you also have the option of calling deuces wild, joker full wild, or joker wild, limited. Now, that's a fair number of options to run through! Stud players (human) can also opt to "sit out" for one or more hands, and then come back in when they want. I found the action to be quite realistic...albeit with little bluffing from the computer opponents.

\$500 Limit?

Blackjack is also one of the better versions that I have seen on the market. As with the previous two, up to four players, but no computer "pros" this time. You can select from one to six decks to play from and you also have the usual Blackjack options; double-down, split (and resplit) pairs, insurance, surrender and bonuses. And, the Blackjack game has another neat feature. Remember the old system where five cards under 21 wins automatically? Well, Omega Soft's Blackjack has that feature, beginning with nine cards under winning...and you can "change the magic number to 5, 6, 7 or 8," if you so desire. I found the default betting limits to be \$500.00 and since it is funny-money, I wanted to bet more. Well, each game menu has a bar labeled "PROGRAM

OPTIONS," and you can go in and change virtually everything from the number of credits a player has at the beginning of the game, to the pay-off rate in the Draw Poker game, to betting limits in each of the games.

Enough choices for you? Well, there's more. You can also select the color and background of the cards! And, there is even more (though I haven't delved that deeply into the games). The instruction booklet includes an interesting claim on the next-to-last page. It goes like this: "These directions do not cover every facet of *HOME CASINO*. They do, however, include more than you really need to know to begin playing the games. There's more for you to discover as to go along with the help of the program's on-screen instructions and explanations."

Bottom line? Even with my personal dislike for the Draw Poker machines, *HOME CASINO* is well worth the list price of \$39.95. The graphics are exciting, and it has good sound, strong colors and some accurate poker and blackjack strategy.

[Omega Soft, P.O. Box 139, Harrells, N.C. 28444]

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ORBITER

Blasting Off Is Less Than A Blast

Review by Roger Abram

This reviewer expected Spectrum HoloByte's *Orbiter*. Released on the heels of their amazing F-16 simulation, *Falcon*, to follow in *Falcon*'s exhaust fumes and be another dazzling program crammed with stunning graphics and excitement. Unfortunately, there is little comparison between the two.

Despite the company's best intentions (*Orbiter* is dedicated to the crew of the ill-fated Challenger), I found myself quickly losing interest in this space shuttle simulation after I had mastered it. A potentially exhilarating program has been reduced to a matter of staring at a monitor filled with switches, indicators, and gauges. It wouldn't be so monotonous if you could get a panoramic glimpse now and then of the earth, moon, and stars, but any view of the outside world can only occupy one-fourth of the monitor's screen. If they wanted to recreate a claustrophobic feeling of being inside a real shuttle, they succeeded.

Re-entry Procedure

But perhaps the biggest disappointment in *Orbiter* was when I began the re-entry procedures for the first time and anticipated the landing sequence at Edwards A.F.B. What would the earth's terrain look like? Would it be as detailed as the scenery in *Falcon* or *Flight Simulator II*? Well, it looked like a sheet of paper. A stark white sheet of paper with grid lines thrown on it. Major letdown.

On the plus side, *Orbiter* does allow you to venture out of the shuttle in a Manned Maneuvering Unit (MMU) and float in space. Even if you get hopelessly disoriented and have ventured so far that you have no idea where the shuttle is, a

simple click on a drop-down menu will return you safely to the ship. Here it's relatively easy to enjoy a breathtaking view of the shuttle and other objects while Mother Earth keeps an eye on you from down below. The program does, however, slow down considerably when you're in the MMU as changes in your position require frequent access of the program disk to rewrite the portion of the screen displaying the view.

Digitized Speech

A complete session of *Orbiter* will, naturally, start at the launch pad where you have to make preparations for the flight. Mission Control actually speaks to you in digitized speech to inform you of what procedure must be executed next. Although most of the speech is intelligible, their instructions are also printed in one of the four quadrants that your monitor is divided into. Most of your duties involve entering commands into the onboard computer, closing vents, and checking the systems.

Once all systems are go, the shuttle lifts off. A view out of the shuttle's windows shows complete darkness outside, so you'll spend this time monitoring the different onboard instruments. Following the separation of the solid rocket boosters, you can display a map of the earth with a black dot marking the location of the shuttle.

After you reach a stable orbit 53+ minutes into the flight (don't worry, *Orbiter* has a time compression feature), the bay doors need to be opened. You can now get a peek of the shuttle's arm (Remote Manipulator System) and any payload that you brought up. If your

current mission involves deploying a satellite, you'll need to achieve the correct orbit and then use the arm to maneuver the satellite out of the cargo bay.

Radio Black-out

When you're ready to head home, the deorbit burn is next on the agenda. During this critical stage of re-entering the atmosphere, it is imperative to maintain the shuttle's angle of attack between 10 and 12 degrees. During all this activity, mission control is prompting you to type in codes on the computer, close the bay doors, and perform all the necessary tasks prior to the 15 minute radio black-out that occurs during re-entry.

If you punched through the atmosphere successfully, it's time to rendezvous with terra firma at one of the landing sites. As stated above, this is a very non-glamorous aspect of the program. You can try to land the shuttle manually (no easy feat) or put it on auto-pilot and let the onboard computer go through the motions. In either mode, the landing sequence routine is dull, mainly because I never get the "feeling" that I'm even airborne.

Except for three full-screen displays, the monitor is always broken down into four quadrants, each representing a particular function of the shuttle. You can pick and choose which stations are to appear at any given time and even rearrange their locations on the screen, but you can't shape or re-size them. As noted earlier, this may be fine for looking at a screen full of controls, but the ability to enlarge views of all outside objects would have greatly enhanced this program. The full-screen displays are limited to a map of the world with the shuttle's current position marked on it, and low orbital and high orbital charts showing the shuttle's relationship with the earth and orbiting objects.

A Poor Image

The manual (written for the Macintosh version) will need to be kept closely by your side as you work through your first few mis-sions. In contacting the company concerning discrepancies in the manual (the book refers to an "Orbiter Glider Kit" that wasn't included in the package and no instructions were included on how to load the program on an ST hard disk), I was told they would send a glider kit and that it was their policy to put copy protection schemes on Atari ST programs. I was informed that the Macintosh version could be loaded on a hard disk because they don't copy protect Macintosh or IBM disks. She was not at liberty (especially since I was a "reviewer") to explain why Spectrum HoloByte only copy protects Atari programs. I then realized that

we have a worse image than I'd ever imagined.

I suggest you demo this program at your local store before deciding whether or not to purchase it. Even though the programmers did a tremendous job of implementing many different facets of the shuttle program and it obviously was a labor of love, for me the simulation was dull after the fourth session. Except for using it for educational purposes with my children, it won't get much flight time.

Available from Spectrum HoloByte, 2061 Challenger Drive, Alameda CA 94501, (415) 522-3584. List price: \$39.95. Color monitor only. (Monochrome version available directly from the company for an additional \$12.50)

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Fun For the Young Set

PD Programs That Can Open "Doors"

By Brian Miller

A Head Start

Near the top of my list for "dropping a bundle" on my Atari St in the first place, was to give my children a head start in learning. I believed that the earlier their chance to develop some academic basics and comfort in using the computer, the easier their adjustment to school. A number of commercial programs have been available for children who have developed some fundamental skills. That list continues to grow for the ST, if only slowly. In my opinion, there has been a scarcity of programs which are geared to Pre-Schoolers.

So I won't raise anyone's ire, bear this in mind. My children were one and three years old when I bought my Atari. My eldest is only 5 now. I felt it would be a challenge, indeed, to write software which would allow the really young child to play with and learn from the computer, without a lot of help from mom and dad.

As I have suggested, that situation has improved quite a bit. Better yet, the programs which my children have grown to love didn't break my pocketbook either. In fact, all are available in the Current Notes Library. These programs can be found on a total of three library disks, numbers 171, 211, and 294D. Each disk, which costs \$4.00, is chock full of game, music and learning programs. The last two disks listed are more geared to really young children.

A Feeling of Confidence

While you and your children will need to pick your own favorites, I will describe those learning games which have been especially enjoy-

able to my two. They require no reading skills to speak of to be enjoyed. This allows my "I can do it by myself" children a greater feeling of control and mastery. They also give me the chance to do something else, satisfied my children are engaged in an activity which is worlds better than watching some mindless rerun on T.V.

Make a Contribution

All of the programs cited below were written by D.A. Brumleve. He provides information, within each program, for making a contribution to recognize his efforts. Mr. Brumleve wrote the programs with GFA Basic. They exemplify the power and versatility of this language. He says earlier efforts were written in ST Basic and compiled with the LDW compiler. He also states that all of his programs can be found on *Genie*. Use the search word KIDSPRGS to locate them.

Kids-Sketch (Disk #179)

As the name suggests, this program gives the look and feel of an etch-a-sketch tablet. The mouse controls the direction of the eight arrows knobs. The arrows are large, making it easy for even small hands to negotiate the mouse. The directional arrows are placed horizontally along the bottom of the tablet.

The other program options are presented vertically, along the left hand side of the tablet. Sound can be toggled on and off. Lines can be drawn and erased. Sketches can be saved and later loaded from the disk. The program even includes a help function.

Kids-Sketch is even easy enough for most adults to use. The

only difficulty I encountered was in drawing single dots. The directions say single dots can be drawn by pressing the right mouse button. I tried but to no avail. However, I am sure most 5 year olds will be able to figure it out.

(You will also find *Kid Notes*, *Barn Yard (Concentration)*, and *Deluxe Piano Player* on this disk.)

Kid Potato (Disk #211)

Like the *Kids-Sketch* program, *Kid Potato* presents a computer equivalent of a well established children's game, Mr. Potato Head. It provides two options. The player can design his own Potato Head. The program also provides the option to make a potato which matches the one generated by the computer.

Kid Potato is colorful and easy to use. Four of every body part and article of clothing are possible. So the number of unique Potato characters that can be created is generous. The matching option gives the young learner the opportunity to develop some skills in discrimination. The feedback from the computer is clear but gentle, which should diminish the chance the child will quit in frustration.

Kid Mixup

This game presents a story made up of four pictures. The only problem is, the pictures are all mixed up. To complete the game, the child has to put the pictures in sequence. The drawings clearly illustrate the story being told. Placing them in logical order therefore is fairly straight forward.

(*Kid ABC*, *Kid Music* and *Kid Piano* are also on CN disk No. 211.)

KidShapes (Disk #294)

This double-sided disk has three programs: *Kid Publish*, *Kid Shapes* and *Kid Shapes Plus*. *Kid-Shapes* allows the child to design pictures using a variety of geometric shapes and colors. The

game includes five pictures which were built from these shapes. As the game boots up, each of these pictures is displayed. The last one remains on the screen. The child can either erase this picture and build one from scratch, or the child can select the right color and shape to duplicate the picture piece by piece.

My five year old is content to design his own pictures. His first creation was the most unusual "iguana" I have ever seen. One very nice feature of this game is that it can boot up automatically, after the computer is turned on. Instructions are given, but all that has to be done is to move all of the files within the *Kid Shapes* folder onto the root directory of another disk. The next time the computer is

turned on with the shapes disk in drive A, the game will start automatically.

Kid-Shapes Plus is simply a more complex version. The version for younger children presents a total of 28 unique shapes. These include circles, triangles, semi-circles, rectangles, squares, and polygons. Eight color choices are also provided.

Kid Publish

Up to now, your children may have watched in envy as you created a newsletter or flyer using *Publisher ST* or another Desktop Publishing Package. Thanks to *Kid Publish* your kids can boast their own alternative. This program can be set up to boot automatically. It starts to the sight and sound of a

typewriter busy at work. *Kid Publisher* lets your child type in large, easy to read letters. It also provides a drawing mode.

A total of five pages of text and pictures can be created. For my very young children, *Kid Publisher* gives them the chance to peck away at the keyboard. For elementary school age children, *Kid Publisher* has the potential to foster their creativity.

I haven't taken the time or space to describe the Concentration game, Music, ABC and Math programs which can also be found on these disks. I hope the summaries I did give let you have a glimpse of the high quality children's games which you can easily add to your software library. I am sure your children will be treated to hours of enjoyment.

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FREEWARE & SHAREWARE

Great Alternatives

By Derek Mihocka

What do you think of when you hear the word "shareware." Second class software that you get from bulletin boards or user groups? Software that wasn't good enough to sell? A cheap hack that someone thinks is actually worth something? In some cases, all of the above. But being an author of shareware, I'd like to suggest that this is not always true, and that shareware represents a glimmer of hope in the dying ST and Atari 8-bit software markets.

I have also seen a lot of talented programmers who, like myself, do it more for the satisfaction of seeing a program created than anything else. Talent like this should be shared and put to good use, if not in commercial software, then in the form of shareware or freeware. Potential software authors, read on!

Circulated Before It's Sold

Shareware, as I define it here, is software that the author permits to be circulated for free, but for which users must still pay if they decide to use it. With the current state of piracy, both on bulletin boards and in user groups, new commercial software often gets circulated from coast to coast even before it reaches the dealer's shelves. Shareware is immune to this, since it is based on the "try before you buy" policy. It actually thrives with the help of bulletin boards and user groups.

This is what I chose to do with *ST Xformer II*, my shareware 800XL emulator for the ST. Note that shareware, freeware, and PD are all very similar, in that they are distributed by users themselves, and not dealers, but there are differences among them. The following list defines each category of software, based on definitions that I have

come up with from reading many discussions on various BBSs.

What's The Difference?

Commercial—this is the type of software most people think of. It is available through dealers or mail order, and costs anywhere from about \$30 to \$300 or more. Usually well packaged, with half decent documentation and some sort of return policy. Copying and distributing this type of software is illegal and better known as "piracy." Here in Canada, a new copyright law now makes it illegal to make more than one backup copy of software for your own use. I think that's going a bit too far!

Public Domain (PD)—free software, distributed by bulletin boards, online systems, user group disks, and sometimes mail order. The user is allowed to do anything with the software, even sell it and steal code. The author places the software in the public domain so that the rest of us can benefit. Although some PD software is pretty bad, a good chunk of it is not. Some PD software rivals commercial software. There are PD editors, word processors, terminal programs, disk editors, command line interpreters, spreadsheets, graphics editors, and languages. Documentation is usually in the form of a README file on the disk, and may or may not be sufficient.

Freeware—most of what is called "public domain" really fall into this category. This software is free, but is copyrighted to protect the author's rights. For all intents and purposes, it is like P/D, but if you plan to sell it or steal code, watch out! Most magazine files, like programs out of ANALOG, can be considered to be freeware.

Shareware—like freeware, it is free software and the rights remain with the author. However, like commercial software, there is a price, anywhere from \$10 to \$100. If, after obtaining the software, you determine that it is useful to you and that you will use it, you must send a shareware registration fee to the author. Although no one can force you to pay (and if you don't, it's not piracy) you do not benefit yourself or other ST users by not paying.

Pay For It!

Sure, by not paying for shareware you might save yourself \$20, but you are also reducing the chances that the author might improve the software or develop some other piece of software. That hurts everyone! Yes, you can treat shareware as if it were public domain, up to a point. But as soon as you have used it enough to determine that you will continue to use it, pay up!

Some shareware that I have seen has a message that goes something like this: "If you like this program, send a donation to name, address, etc...". It is usually a small piece of software, with perhaps limited utility, but nevertheless, useful to someone. Personally, I feel the author does himself an injustice by begging for a donation. If you are confident about the quality of your software, determine a price. Don't just say "send a donation." After all, you have spent your time and money to develop this software. You rightfully deserve to be compensated. Some will probably decide to send you a \$5 donation. I suggest a minimum fee of \$10 for straight donations, and \$20 if you send something back, such as an update disk or documentation.

Some Do--Some Don't

There are two types of people who will use your program: those that pay and those that do not. The ones that do not pay should read this article and reconsider. The ones that do pay, will pay, no matter what the author requests as a shareware fee (as long as it is reasonable).

In my own case, I first released *ST Xformer* // last July through Compuserve and Genie. It was downloaded by hundreds of people, and when they ran the program, they were all greeted with the same message that told them that *Xformer* // is shareware and registration is \$15. As an extra incentive to register, I put together a user's manual for the emulator, so that anyone who registered would get the manual as well a disk with the very latest version of the program.

The \$\$\$ Rolls In

Within days, I started receiving registrations. Some shareware authors I spoke to had told me that I probably wouldn't get a penny, that shareware simply doesn't work. It did work. Some of the first batch of letters actually had more than \$15 enclosed, even more than \$50! This is why I concluded that people will either pay or not pay, regardless of the amount. When I later raised the fee to \$20 with the release of *Xformer* 2.1, the flow of mail actually increased, although this was probably due to the fact that *Xformer* was starting to spread around the country's BBSs. The reason I raised the fee was because only after I had started receiving registrations did I realize just how much it costs to buy disks and print manuals, and postage wasn't cheap either. Most of the \$15 was being spent and not much was left for me.

I'm sure I speak for the other shareware authors when I say that I love to receive letters along with the checks and money orders. By far, what I really appreciate is a letter that describes the user's system, his needs and wants, and software

usage habits, and also contains suggestions for improvements to the emulator. This allows me to decide which modifications need to be made to the software, and which do not.

Ignoring Some Letters

One type of letter that I find incredibly irritating goes along the lines of "if you put in such and such changes, I'll register." It's a sort of ransom note, and I really doubt that these people would ever pay for the program. To all the potential shareware authors out there: ignore those kinds of letters, except for the valid points they do make. Do not let the thought of a potential donation cause you to waste time on a feature that perhaps no one else would need.

Be Accessible

I made my phone number known to allow people to reach me directly if they so chose. This has resulted in several calls per day, most of them leading to an eventual registration. It really pays off to make yourself accessible, even it means that people call you at 3am. Being on the east coast, I sometimes forget that the caller might be in California simply waiting for the after midnight phone discounts.

Worthwhile Procedures

So how should someone go about releasing a piece of shareware, freeware, or public domain software? First of all, never, never, NEVER release anything as public domain unless you truly wish to forego any payment or recognition for the software.

If you think about it, there is actually very little truly public domain software. By displaying a simple copyright message in the software, your software is moved from the category of public domain to freeware. Most software that is available from bulletin boards, Genie or Compuserve, and even some magazines, is freeware.

It is usually a good idea to put in permission notices in addition to the copyright notice. Tell people that the software is free and that it may be copied, under the conditions that the software remains intact and unaltered, and that no fee is charged for the software other than the cost of the media or download.

So when should freeware become shareware? I've seen too much "shareware" that was nothing more than a night's work. The documentation was of no help, or nonexistent. Bugs were obvious, but sure enough, there was a clearly displayed "send \$\$\$ to" message. It's software like this that gives the remainder of free software the second class image, and it's really too bad.

It All Takes Work

You can't simply lie back and expect money to start rolling in. Shareware should take as much effort as a commercial piece of software. That means writing proper documentation, including such things as software memory and disk drive requirements, and which graphic modes or resolutions are supported.

Be prepared to make updates to the software. Obviously, there will be bugs in the first release, and bug reports will start coming in soon.

Open up a new bank account and get a post office box. This is the simplest way to keep the shareware income separate from your regular income, and a post office box will come in handy if you have to move. The post office (or the new residents of your old house) can't always be trusted to forward your mail.

For shareware to be successful, you must make sure that it reaches your intended audience. Handing a copy of the software to your local dealer or user group will hardly accomplish that, and your software will probably not leave the city limits.

There are two ways that I've used to get software out to a lot of people. In 1987, I joined CompuServe, and shortly thereafter, Genie. These two online services support the two largest Atari special interest groups. On Genie, they are known as the Atari 8-bit and Atari ST Roundtables. On CompuServe, there is the ATARI 8, the Atari ST Productivity, and Atari ST Arts forums. Each one is used by hundreds of Atarians every day, and each one contains thousands and thousands of free files. The only cost is the charge for the time to download the files, usually about a dollar or two.

Access To Thousands of People

Before you get turned off about these services, remember this. Thousands of Atari users are members of these services, and thou-

sands more have friends who are members. It is certainly worth your while to spend the \$40 or so to subscribe to these services. And you are not charged for the time it takes to upload your files.

Using The Magazines

The second method, if you are patient, is to send the software to a magazine, like Current Notes. If you flip to the back of this magazine you will find the public domain libraries, which of course cover freeware and shareware. Simply send them a disk, and it will end up in the library.

A variation of this is to submit the software to a magazine like Antic or Analog for publication. Your software will appear in the magazine and on the monthly disk, where tens of thousands of subscribers will be able to use it. Again, this requires that you write good documentation, at least two magazine pages worth.

Also, depending on the magazine and the particular software, the magazine may or may not retain rights to the software. If they do, it becomes their property, but in return you are paid a sum of money, anywhere from \$250 to \$1000.

These are some things to consider. Do you wish to submit it for publication, and grab the money in a one shot deal, or take the risk of releasing the software as shareware and possibly earn much more money? You can't do both.

Finally, remember this. It's *your* name on the software, so please don't put out trash.

Hopefully, this discussion will encourage more people to support shareware, both as users and authors. I can be reached on CompuServe and Genie. Hope to hear from you.

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Getting Your WORDs PERFECT



by Pamela Rice Hahn

A Myriad of Choices. All ST lovers are familiar with the phrase: "Power without the Price." Our machines offer us many things including our low investment, oftentimes of both money and (learning curve) time. However, for those of you who remain nostalgic for the simpler "power without the price" days of ST Writer but now find you and your word processing (wp) needs have necessitated your graduating to a more powerful, multi-featured wp program and, for whatever reasons, have chosen *WordPerfect* (WP) to fill that need, you can take heart that there are a multitude of books offering you the additional assistance you probably need in mastering all those features now that you have them. (Okay, I've got 'em. Now, what do I do with 'em?)

While space doesn't permit our listing them all, I have chosen a few of the many WP guides and tutorials available. As a disclosure I will mention that (alas) all books previewed were written for the IBM version. Also, all books mentioned cover versions 4.1 and 4.2. (I have chosen to wait to include those books that include explanations dealing with version 5 [which, as of this writing, may never see its way to our ST] in an upcoming review of desktop publishing books.)

WordPerfect: A Quick Program Reference Guide. This handy little 148-page, indexed volume is one of Abacus' PRG (Program Reference

Guide) series. (Other titles include Microsoft WORD, MS-DOS, Lotus 1-2-3, etc.) For a mere \$9.95 you get a synopsis of all the features available from WP. Appropriately billed as "instant information at your fingertips," this portable 4 3/4" x 8" volume includes chapters on installing, starting, file conversion, and the printer programs. Math and merge commands are discussed. A separate section is devoted to the keyboard layout, the function key layout, the speller, and the thesaurus. The bulk of the book explains the other commands available from within the program. A Quick Index, which alphabetically lists specific WP commands, precedes the more detailed general Index. Handy and informative.

(ABACUS, 5370 52nd Street SE, Grand Rapids, MI 49508)

FAST-Access Word Perfect.

by Rhyder McClure. Because this plastic spiral-bound book is an A to Z guide, an index isn't needed; the table of contents serves that purpose, steering you to the proper page to find the instructions you need. This book combines each reference definition with at least one example explanation, walking you through the steps necessary to complete the function you're attempting to master. (The section on Mail Merge is especially helpful.) In addition, McClure also includes step-by-step instructions for 11 macros. A detachable (Ver. 4.2) command card is also provided.

(\$12.95, 200 pages, BRADY, Simon & Schuster, Inc., distributed by Prentice-Hall Trade.)

The Best Book of: WordPerfect,

by Vincent Alfieri. The examples Mr. Alfieri uses in this book are taken from the wp classes he teaches at USC. This guide starts with a beginner's introduction to wp and computers and proceeds through 28 chapters'—worth of hand-holding, humorous examples and introductions into the capabilities of WP. Indexed and with two appendixes—

—one containing the documents used in the book and another listing and briefly explaining the WP commands, this 432-page reference is an enjoyable comprehensive WP tutorial.

Chapters include (two on) the basics, formatting, special printing effects, macros and file management, working with multiple text columns, numerical accuracy, form letter mailings, fill-in documents, the laser revolution, etc.

(\$21.95, HAYDEN BOOKS, A Division of Howard W. Sams & Co.)

WordPerfect Tips and Tricks,

by Alan R. Neibauer. While this book does briefly touch on the basics, most of its 487 pages are devoted to taking full advantage of WP as an integrated software tool for spreadsheet applications, thought and outline processing, and database management processing and reporting. Each self-contained topic focuses on specific tasks and advanced applications. Whether you simply want to create a form template or wish to customize a series of macros and menus, Mr. Neibauer will point you in the right direction. Numerous excellent examples.

(\$19.95, SYBEX)

WordPerfect: Secrets, Solutions, Shortcuts

by Mella Mincberg. This book was designed specifically for business professionals and as such may be more detailed and involved than the casual home user needs. (However and on the other hand, the casual home user probably didn't bother to get WP in the first place.) With that in mind . . .

The book is divided into three sections: basic features, advanced features, and practical applications. Sprinkled with highlighted "tips" and "traps," this reference is a hefty 726-page guide to mastering WP. If you really want to harness the potential of WP, Mella Mincberg's book is an ideal assistant in attaining that goal. For that reason, I highly recommend this book.

(\$19.95, Osborne McGraw-Hill)

FLEXCESSORY

An Accessory That Delivers

By D. B. Maxwell

Since my initial plunge into ST ownership over a year ago, my system has grown to include a Mega 2, an SH204 hard drive, and an SLM804 laser printer. More telling is the massive accumulation of floppy disks overflowing two storage cases and encroaching on the remainder of my desk space, a daily reminder of my constant search for quality software.

I had nearly resigned myself to a diet of *Easy-Draw* and *Publisher ST* when I stumbled across an E.A. Brown Catalog advertising a new flexible accessory.

"Loads, Dumps Utilities W/O Rebooting or Quitting Resident Applications," the ad promised, "Money Back Guarantee." Within minutes I was on the phone with my order.

What Is It?

Flexcessory is best described as a multipurpose accessory. Unlike other multipurpose accessories (*Partner*, *Macrodesk*, *Solapac*, etc.) its various functions are provided as separate utility programs which may be loaded automatically at bootup or loaded and unloaded at will by the user.

More important is that the user can load other programs with .PRG, .TOS, .TTP, or just about any other extension into the *Flexcessory* menu, and then run them as if they were accessories.

Flexcessory (Flex! for short) can keep up to 15 programs in memory at a time. Since the programs all share a common execution area in RAM, they often require far less memory than an equivalent number of .ACC programs. The tradeoff is that, because of that

common execution area, one cannot run two Flex! programs simultaneously.

How Does It Work?

Accessing a program from Flex! is a simple matter of selecting *Flexcessory* from the Desk Menu. The user can then select one of the programs already loaded (shown at the bottom of the Flex! menu) or load and run a new program.

From that point on, running a program from Flex! is like running it from the desktop, but with the added benefits of a desk accessory.

Flex! loads automatically at bootup as a desk accessory. A configuration option allows Flex! to load a user-defined list of programs into its own menu as well.

What's Included?

Flex! comes with a set of about twenty utilities that impressed me immediately as being unusually well-thought-out.

Even such a mundane utility as an algebraic calculator pad provided an unusually friendly work environment. (Flex! also offers an RPN version) The keys were in the right places, and all the functions worked intuitively. Similar human considerations abound within Flex! and its accompanying programs. While the programs in the Flex! package could not be described as "feature-laden" the conscientious design of these programs generally compensates for any lack of features.

Among the utilities included with *Flexcessory* are replacements for the ST Control Panel, Printer Setup, RS-232 Config, the VT-52

Emulator, and a number of disk utilities.

In addition, the Flex! configuration menu offers an install/uninstall option for a resizeable RAM disk, a print spooler, and a clock and calendar display.

A Nifty Drop-down Word Processor

The most useful program included in the package is the mini-word processor FLEXIPAD.APP. Its keyboard response and scrolling are the fastest I have seen on any GEM-based word processor. While *Flexipad* is a minimal implementation (remember, it runs as an accessory) its menu does include such features as search and replace, block move, block copy, and block kill. It uses a fully resizable GEM window, with scroll bar and drop down menu.

Best of all, word wrap actually works. Anyone frustrated by *Wordwriter* or *First Word Plus* will immediately appreciate text that auto-wraps to fit the size of the window. Printing also auto-wraps to the width of the display window, making print formatting a snap.

I find countless uses for *Flexipad*. From the desktop I can edit an ASSIGN.SYS file in a *Flexipad* window while looking at the contents of the GEM.SYS folder in another window. I can jump back and forth between *Flexipad* and *Publisher* merely by clicking on a window, eliminating the drudgery of editing text in a GDOS application.

What Makes Flex! Special?

For those who prefer to view Flex! as a program switcher, the one feature that sets Flex! apart from all other switchers (*Revolver*, *Multidesk*, *Juggler II*, etc.) is its ability to return memory to the system while still in an application.

For instance, after loading *Publisher ST* from the desktop, any programs subsequently loaded into

Flex! can later be cleared from memory, without returning to the desktop. Furthermore, all the memory allocated for those programs will be returned to the system and will be available for use by *Publisher ST*. This is particularly important for GDOS users who have found in the past that, with all their favorite accessories loaded, there just wasn't enough room for that 18-point Dutch laser font. Prior to Flex! such users had no choice but to reboot the system in order to increase the available RAM.

Flex! offers a configuration option which allows the user to set aside a reserved memory buffer. This allows programs to be loaded into Flex! even after such memory grabbing applications as *ST BASIC* or *First Word Plus* have been loaded from the desktop. Flexcessory is shipped preconfigured with a 72K buffer.

In order to maximize the RAM available to my laser printer, I reconfigured Flex! to eliminate the buffer. If you operate without a reserved buffer, programs loaded into Flex! while inside an application should be unloaded before you return to the desktop. Otherwise, quirks in the ST's unfinished operating system may cause a failure when Flex! is accessed later on in another application.

Flex! has none of the arbitrary memory configuration requirements which accompany other switching programs. The amount of RAM which Flex! requires when configured without a reserved buffer is just enough to hold the loaded programs and a small execution area that expands to the needs of the currently running Flex! program. Flexcessory, itself, takes up only 52k of ram, about half the minimum configuration of Timeworks *Partner*.

So What Else Can It Do?

While the authors make no claims about Flexcessory's ability to run programs other than those in-

cluded in the package, they do provide some hints as to what types of programs are likely to run under Flex!. After a positive initial experience with Flex!, I found myself trying to load every program that met their criteria.

First of all, GEM has definite rules against using a menu bar in an accessory, so it follows that programs with menu bars won't work in Flexcessory.

Second, a program with an external .RSC file will have serious difficulty finding that file if it doesn't happen to reside in the current directory when the program is run. Best to steer clear of those as well.

Of the remaining programs (remember, we're talking about

...running a program
from Flex! is like
running it from the
desktop, but with the
added benefits of a desk
accessory.

programs that were intended to be run only from the desktop) a majority of the programs in my library can be run as accessories from the Flex! menu.

Some of those PD and Shareware programs include: *Rvsscm*--a utility to reverse the monochrome screen colors, *Whereis*--a file title search utility, *Search*--a text string search utility, *Chngfnt.ttp*--a utility to change the system font between large and small, and *Superboot*. Since I hardly ever need to reboot my system now, I run *Superboot* from Flex! for those rare occasions when I need to change system configurations.

Some commercial programs, such as the *GFA BASIC* interpreter and *DBMAN*, run well under Flex!, but they gobble up all available memory, and they don't return it to the system upon termination.

As a workaround, I've found I can get most RAM back after

running *GFA BASIC* or *DBMAN* if Flex! is configured to automatically set a large user stack whenever it encounters those programs. In this case, the large user stack serves merely as a way to protect memory from ill-mannered programs.

This method is good for only once or twice per session, but it could perhaps be a time saver if you get a phone call requesting price information from your *DBMAN* files while you are in the middle of an *Easy-draw* session.

With *GFA BASIC*, a better work-around is to use the statement "RESERVE 0" at the end of the last program you run from the GFA runtime module or editor. This statement essentially executes the operating system's "mshrink" function, and gives back all but 32k of memory everytime you run *GFA BASIC* from the FLEX! menu. Using this technique *GFA BASIC* (both the editor and the run time module) run as well from the Flex! menu as from the desktop, and you don't have to play games with the user stack.

Roll Your Own:

If the idea of running your BASIC programs as accessories is appealing, but you can't remember to type "RESERVE 0," or you can't afford to lose 32K of RAM everytime you run the GFA Interpreter, then the *LDW BASIC Compiler* might be the best bet for now.

An enthusiastic user under the monicker of WILD BILL recently uploaded a few demos to GENIE showing the ease of writing simple GEM programs with *LDW BASIC* version 2.03.

Bill's simple compiled *LDW BASIC* programs loaded into Flex! and ran smoothly as accessories over even my most troublesome applications. Although *LDW BASIC* programs grab all available memory, a quick check of available RAM after running the compiled code showed that they return every

bit of allocated RAM to the system upon termination.

A few weeks of hard testing have since proven the *LDW BASIC Compiler* to be an impressive tool that, with a few minor exceptions, generates fast and reliable applications from a set of simple high level commands. (Although LDW's compilation process seems interminable)

Non-windowing LDW programs execute flawlessly from Flex!, and require no special programming tricks.

• Windowing LDW programs also work well under Flex! so long as the programmer shows some creativity with event handlers, polling loops, and window opening and closing routines.

HiSoft BASIC, a new offering from Michtron, provides a lightning quick Basic development environment. Unfortunately, HiSoft programs use an unorthodox (and undocumented) method to check available RAM, and fail to find enough memory during initialization.

Now, if only *LDW BASIC* were available as an interpreter.....

Back to Flex!

Flex! is not totally without flaws. The UNLOAD ALL menu selection doesn't return memory to the system, so I use UNLOAD instead. Deleting a block beyond the end of text in Flexipad! currently halts operation, so I don't do that. Accidentally activating the host program's menu while in Flexipad and then using the keyboard adds extra mice to the screen, so I don't do that either. After months of intense use, however, I have found no flaws in Flexcessory which limit its usefulness, and I have found no incompatibilities with any host programs.

Personal Preferences

Although wordprocessing is

currently the only data manipulation I do from the FLEX! menu, I'd like to see Flex! programs utilize the RAM disk for temporary data storage so that I can switch between programs without having to save and reload data.

The manual, although very well written, could stand some additional material on the rules of operating Flex! without a reserved buffer. The process is extremely simple, as I've pointed out, but not immediately obvious.

Summary

Programmers Paul Franzen and Kurt Casby of Insight Software are also the authors of the software driver for E. Arthur Brown's "Picta Scan" hardware scanner attachment for dot matrix printers. The authors are currently preparing a second disk of Flex!-compatible

programs to be released in early 1989. During the course of our discussions Mr. Casby emphasized their eagerness to implement suggestions from the users regarding improvements or additions to their products.

While it may not be perfect, Flexcessory does more things well than any ST program I've seen, and it does things no other ST program can do. My overall reaction after six months of using Flexcessory is that I can't wait to see what these authors do next.

If you use your ST for real work, Flexcessory is a clean, no nonsense package that delivers what it promises. At \$29.95 this program is a real bargain.

[Distributor: E. Arthur Brown, Co., Alexandria, MN; 800-322-4405.]

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by
**Joseph
Russek**

STARS 3-D

This animated program by Craig Patchett (originally published in ANALOG) presents hosts of stars travelling from left to right on a black background. The layering of the stars produces a wonderful three-dimensional effect.

```
160 START=14336:REM * $3800 HEX
170 FOR I=START TO START+377
180 READ BYTE:POKE I,BYTE:NEXT I
190 X=USR(START)
200 DATA 32,49,56,32,145,56,169,0,141,
200,2,169,7,162,56,160,38,32,92,228,16
9,253,141,0,2
210 DATA 169,56,141,1,2,169,192,141,14,
212,76,35,56,32,13,57,169,0,141,173,63,
76,98,228,169
220 DATA 189,141,189,62,169,59,141,205,
62,162,0,142,221,62,232,189,188,62,24,1
05,48,157,189,62,189
230 DATA 204,62,105,0,157,205,62,169,0,
157,221,62,232,224,16,208,229,169,189,1
33,204,169,59,133,205
240 DATA 160,255,162,3,169,0,145,204,13
6,192,255,208,249,202,240,5,230,205,76,
106,56,162,0,189,189
250 DATA 62,133,204,189,205,62,133,205,
169,64,160,0,145,204,232,224,16,208,235
,96,169,119,133,204,169
260 DATA 57,133,205,169,0,141,173,63,16
0,3,169,206,145,204,200,208,2,230,205,1
73,10,210,41,7,72
270 DATA 170,189,111,57,174,173,63,157,
237,62,104,238,173,63,10,170,173,10,210
,41,63,201,48,176,247
280 DATA 24,125,189,62,145,204,200,208,
2,230,205,189,205,62,105,0,145,204,200,
208,2,230,205,192,67
290 DATA 208,189,169,65,145,204,200,169
,119,145,204,141,48,2,200,169,57,145,20
4,141,49,2,169,35,141
300 DATA 47,2,96,174,173,63,189,237,62,
141,10,212,141,22,208,238,173,63,64,162
,13,32,50,57,32
310 DATA 50,57,162,12,32,50,57,32,50,57
```

```
,202,48,17,222,87,57,208,248,32,50,57,1
89,99,57,157
320 DATA 87,57,76,29,57,96,189,189,62,1
33,204,189,205,62,133,205,188,221,62,17
7,204,10,10,145,204
330 DATA 144,15,169,1,136,192,255,208,2
,160,47,145,204,152,157,221,62,96,8,8,6
,6,4,4,3
340 DATA 3,2,2,1,1,8,8,6,6,4,4,3,3,2,2,
1,1,34,36,38,40,42,44,46,34,112,112,240
```

PATTERN

Thanks to the Dallas Users Group for this exciting program. A succession of rapidly drawn boxes of all colors shoots out at the viewer, creating an hypnotic sensation.100 TRAP 260

```
110 OPEN #3,4,0,"D:PATTERN.DAT"
120 GET #3,X
130 GET #3,X
140 GET #3,X
150 GET #3,Y
160 ADSTART=256*Y+X
170 GET #3,X
180 GET #3,Y
190 ADEND=256*Y+X
200 ADCUR=ADSTART
210 GET #3,X
220 POKE ADCUR,X
230 ADCUR=ADCUR+1
240 IF ADCUR<=ADEND THEN GOTO 210
250 GOTO 140
260 CLOSE #3
300 GRAPHICS 19
500 A=USR(1536)
```

Do you have any 'Small Miracles' to share with CN readers? Send to Len Poggiali, 225 Mosley Dr, Syracuse, NY 13206.

GRAPHICS 8 DEMO

Beginning at the top-left and bottom-right of the screen, a diagonal line is formed. Slowly it expands into a full-screen design of great beauty. Green, blue, white, and black lines form to complete this intricate, delicate design.

```
10 REM A DESIGN IN GR.8
20 GRAPHICS 8+16:SETCOLOR 2,13,2:SETCOLOR 1,13,14
27 COLOR 1
30 FOR A=0 TO 319 STEP 3:PLOT A,0:DRAWTO
319-A,191:NEXT A
40 FOR A=191 TO 0 STEP -2:PLOT 0,A:DRAWTO
319,191-A:NEXT A
50 COLOR 0
60 FOR A=80 TO 239 STEP 3:PLOT A,70:DRAWTO
319-A,122:NEXT A
70 FOR A=122 TO 70 STEP -2:PLOT 80,A:DRAWTO
239,191-A:NEXT A
100 GOTO 100
```


MAGNIPRINT II+

Review by Ron Peters

Magniprint II+, by Alpha Systems, retails for \$24.95 and prints all Atari graphics and text modes. It allows multiple-sized prints of most graphics; printing of selected areas of the picture; horizontal, vertical, inverse or normal prints; and large poster-sized printing. According to Alpha Systems, *Magniprint II+* is the only graphics printing program that is fully compatible with ComputerEyes. I'll have to take their word for this one, since the only "computer eyes" I have are from staying up late writing these reviews.

Magniprint II+ even contains a mirror image feature that allows iron-on T-shirt capabilities (with special ribbons, of course), and a utility for printing BASIC program listings with all inverse and Atari graphic characters.

Sounds neat, eh? Well, let's boot this one up and see what we find.

The initial screen (main menu) offers the options of going into the main MAGNIPRINT program, using the BASIC listing utility, or converting other graphic formats into this program for printing. The graphic conversions include: Micro-Painter, Fun With Art, Graphics Master, Super Sketch, Micro Illustrator, Paint, B/Graph, Strip Poker, Movie Maker, Graphics Magician, Atari Light Pen, Print Shop, Syngraph, Computer Eyes, Typesetter, Sketch Pad Icons.

Also on the main menu is the printer selection function, with Nec/C.Itoh, Gemini, Epson/Star, Panasonic and XMM801 printers supported.

To load and print a picture, the *Magniprint II+* option is selected from the main menu. Once the printing routines are loaded, you are asked for a filename, with the option of getting a directory listing by hitting RETURN. On the back side of the disk there are sample pictures in graphics modes 7.5 (Antic E), 8, 9, 10 and 11 formats, which you can use to play around with the features of the program.

Once a picture is loaded, pressing START produces a rough draft (Quick Print), and OPTION produces the same in inverse. For a normal printout, press "N" and a number from 1 to 8 (picture size) and then START. Another option is producing a mirror image of the graphic with CONTROL-M.

The manual indicates that by loading the Koala Pad (Graphic 7.5) graphic supplied on the disk you can print the image in four tone shading in the shades you prefer. This option didn't appear to work in spite of several attempts and my rereading of the manual. On

one occasion, during the print process, I did hit the ESC key and got the gray shades screen, but I could not duplicate the process at any other time. Supposedly, by using different colored ribbons and the four-tone shading feature you could produce a colored printout (assuming, of course, that you can precisely line up the print head for each pass, which has the same probability as my dog kicking the winning extra point in the next Super Bowl).

Where you pick a print size larger than "2", L-shaped cursors appear in each corner of the screen to show what portion of the image will print on a normal page. The cursors can be moved around with the joystick to print just a portion of the image. As the manual states, print "sizes can vary from printer to printer," so you have to experiment to determine the exact print dimensions of each option.

By pressing the space bar, with a graphics image on the screen, you go into a sub-menu that allows you to load another image, save this one, do "touch-ups," add text, print in enhanced (bold) mode (may or may not work, depending on your printer--no clue as to which ones work, you have to try), change the line spacing, or go into the poster-size printing mode (which allows the image to be printed on several pages that can be pasted together to give a large print).

The conversion portion of the program works as stated and is fairly simple. I did convert images from *Micro-Painter*, *Print Shop*, *Typesetter* and *Strip Poker* with no problems, with the exception that the *Strip Poker* images (graphic 7.5) were not very satisfactory to me (I'm used to high quality pornographic images).

Overall, this is an excellent program packed with many features, some of which I did not cover here. However, I found that the manual was lacking or misleading in some areas, and got the impression that the program had been updated without telling the guys in the manual shop. I also did not like the fact that to go from the print images section to the conversion utilities requires rebooting.

Frankly, the program offers little interest for me. Not knowing the size and placement of the printed image is a serious drawback for my needs. Perhaps once you get used to the power of desktop publishing, with the ability to crop, size and place the image anywhere on the page, you are spoiled for anything less.

I also do not have a need to convert *Strip Poker* or *Print Shop* graphics (for example) for printing. But, if you do, this one's for you, for it does the job nicely.

(Alpha Systems, 1012 Skyland Drive, Macedonia, OH 44056, 216-374-7469).

May, 1989

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WAACE CLUB CORNER

This space is made available to WAACE member clubs for their use in publicizing activities. Material for this column must be in the hands of the Clubs Editor by the 3rd of each month. Send copy to Ed Seward, PO Box 2699, Merrifield, VA 22116. Material can also be uploaded to the ARMUDIC BBS.

NOVATARI

Northern Virginia Atari Users' Group

President.....	Bonnie Little.....	703-444-2419
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New Members: Dues are \$24/year/family which includes a subscription to CURRENT NOTES and access to more activities. Join at the main meeting or at a chapter meeting or by sending \$24, payable to NOVATARI, to NOVATARI, PO Box 4076, Merrifield, VA 22116.

Novatari Main meeting: second Sunday of the month at the Washington Gas Light Building, 6801 Industrial Rd. Springfield, VA. Take 495 to east on Braddock Rd. (620) to south on Backlick Rd (617). Left on Industrial Rd. Washington Gas Light is the second building on the right. 5:30 Programmers SIG; 6:15 announcements, open forum, door prizes; 6:45 VAST and 8BIT SIG meetings.

Chapter Meetings: Mt. Vernon/Hybla Valley, 1st Thursday, 7:30 Contact Ron Peters at 780-0963. Sterling, Sterling Library, 7:30-9:30, Wed after the Second Sunday Contact Richard Gunter at 471-7765. Vienna, 4th Sunday, Contact Ed Seward 573-3044 for time and place.

A.U.R.A.

Atari Users Regional Association

President.....	Niel Johnson.....	301-540-1794
8-bit VP.....	Steve Preston.....	301-972-9632
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Meetings: Third Thursday of each month in the Multipurpose Room at GRACE EPISCOPAL SCHOOL. The school is on the east side of Connecticut Avenue, 1/4 mi. north of the Connecticut Avenue (North) Exit from I495. Library and swap table sales begin at 7:15, the meeting begins at 7:30. We have separate XL and ST demonstrations. There will be 8-bit and 16-bit door prizes.

Correspondence. All correspondence, including membership renewals, changes of address, etc. should be sent to: AURA, P. O. Box 7761, Silver Spring, MD 20910. AURA cannot guarantee CURRENT NOTES subscription fulfillment unless the member provides written confirmation of address changes, renewals, etc. to the address given above.

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W.A.C.U.G.

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Secretary.....	Jim Sawici.....	703-670-3527
Librarian.....	Frank Bassett.....	703-670-8780

Meetings: 7-9PM, Community Room, Potomac Branch, Prince William County Library, Opitz Blvd., Woodbridge, VA. Entering Woodbridge from either North or South on Route 1, proceed to the intersection of Route 1 and Opitz Blvd. (opposite Woodbridge Lincoln-Mercury). Turn West on Opitz and take first left turn into the library's parking lot. The Community Room is located to your left immediately upon entering the main building. Meeting Dates: May 16, June 20.

New Members: Initial membership fee is \$10 plus \$1 monthly dues. Renewals are \$20 per year, payable as of 1 January.

Membership includes a subscription to CURRENT NOTES. Join at meeting or send check, payable to WACUG, to David Waalkes, 1302 Oregon Ave, Woodbridge, VA 22191.

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Correspond. Secy..	Cam Whetstone.....	301-486-2609

Meetings: last Tuesday, 6:30 pm, Pikesville Library, 1 mi. east on Reisterstown Rd from Exit 20 off the Baltimore Beltway.

New Members: Club Dues are \$22/year and include a subscription to CURRENT NOTES. Join at meeting or send check, payable to MACC, to James Hill, 8591 Wheatfield Way, Ellicott City, MD, 21043.

G.R.A.S.P.

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M.A.S.T.

Meade Atari ST Users Group

President..... Bob Johnson 301-674-8762
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Meetings - Third Wednesday of each month in the SeaLandAir rec center on Fort Meade from 1830 to 2100 hours. Call Bob Johnson any evening for further information.

Mailing Address: All correspondence, including membership renewals, changes of address, etc. should be sent to: MAST, c/o Bob Johnson, 1616B Forrest Ave, Ft Meade, MD 20755.

New Members. Dues are \$27/year and include subscription to CURRENT NOTES and unlimited DL and message activity on the Tangent Line BBS. Send name, address, phone number, and check to above

F.A.C.E.

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Meetings: 4th Tuesday, 7 - 9:30 pm, Walkersville HS, MD Route 194, 1 mile north of MD Route 26 (Liberty Road). July and August meetings will be held at St Paul's Lutheran Church, 14 W. Pennsylvania Ave, Walkersville, MD.

New Members: Dues are \$25/year/family and include a subscription to CURRENT NOTES. Join at meeting or send check, payable to FACE, to Buddy Smallwood, PO Box 2026, Frederick, MD 21701.

S.M.A.U.G.

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Acting Treasurer..... Samuel Schrinar 301-843-7916
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ST Librarian Steve Hunt 301-868-0418

Meetings: 2nd Thursday, 7:30 pm, at the Meridan Nursing Home in La Plata, MD. Travel south on Route 301 to first traffic light in La Plata. Turn right on Route 225 (going west) go approximately one hundred yards and turn left at the Meridan Nursing Home sign.

New Members: Membership dues are \$27 and include a subscription to CURRENT NOTES. Join at the meeting or send check, payable to SMAUG, to Sam Schrinar, 2032 Alehouse Court, Waldorf, MD 20601.

WAACE GOINGS ON

Waace AtariFest 89

John Barnes, WAACE Chairman

AtariFest 89 is alive and well. The event will be held on October 7 and 8 at Fairfax High School. Prices for Vendor tables have been increased by 50% in order to allow us to wage a more effective advertising campaign. Gary Purinton of NOVATARI and Bob Johnson of MAST are in charge of this activity. Johnna Ogden of NOVATARI is responsible for vendor recruitment. Russell Brown of NOVATARI is handling the banquet and motel arrangements. Charles Smeton of MACC is responsible for the program side, with overall responsibility for seminars, rooms, etc. Georgia Weatherhead is acting as a consultant and as liaison with Atari Corp. At this writing the user group coordination activities in Sunnyvale were undergoing another reshuffle in the wake of Cindy Claveran's departure.

The next WAACE board meetings are scheduled for 27 April and 25 May. Check with me or Russell Brown for locations and times. Come on over if you want help or if you have an axe to grind.

ATARIFEST '89

OCTOBER 7 and 8

AURA

Niel A. Johnson, AURA President

Greetings from AURA! Our May 18th meeting will feature a representative from CalCom Inc to bring us up to date on new items in the Atari world.

Our open flea market has increased in popularity lately. Many people have found the sale of drives, keyboards, Mice(!?), and "tons" of software to be an important resource at our meetings, in addition to sales from our extensive libraries.

The meetings begin at 7 pm with library and flea market sales, and the theme part of the meeting starts around 7:30 with the door prize drawings. We hope to see YOU there!

A special word of thanks goes out to the new group of AURA officers. Your efforts have been outstanding, and the quality of our club reflects your time and dedication. Keep it up!

NOVATARI Notes

by Bonnie Little, President

A new month -- more new news! NOVATARI has an official address now so you can send anything and everything(?) to one place to

the attention of whoever you want. All membership and BBS dues should be sent there. Our new address is: NOVATARI, PO Box 4076, Merrifield, VA 22116-4076

To assist us in getting the information to the proper person in a timely manner please put "membership" or "BBS" or whatever on the envelope.

Speaking of dues, we find it necessary to increase the membership fee to \$24/year starting June 1, 1989. Any renewals postmarked on or before May 31, 1989 will be accepted at the old rate of \$20. I don't need to tell you all that you can renew your membership at the old rates even if your membership is not expiring before that date and save yourself four dollars.

The ST SIG will be having a demo of STOS at the May meeting and we hope to have another demo and question and answer session about ARMUDIC at the June meeting.

Don't forget the new BBS number and our new SYSOP, Scott Ogden. The BBS underwent a hardware upgrade during the changeover. The one meg 520 was replaced with a MEGA 4. Scott and Ed are excited about this and the changes Scott is making to the BBS. If you catch one of them on-line you can get all the new info from them. They never explain it all to me.

SEPTEMBER 1988

- #263: ST XFormer, V2.2.** Atari XL/XE Emulator program.
- #264: ST XFormer Utilities.**
- #265: VANTERM, Ver. 3.71.** NEW REVISION. Terminal Emulator w/xmodem, ymodem, vidtex graph.
- #268D: The Planets.** 51 pictures provide graphical tour of the solar system.
- #269: Mono Games No. 6.** (Anduril, Ballerburg, Diamond Miner, Invaders, Snafu Principle. Plus monochrome emulator program.
- #270: Quiz-Plus.** Let your ST teach you. sample lessons. (C) No MEGA.

OCTOBER 1988

- #271: Lambert Pics No. 3.** 12 Degas elite pics.
- #272: ALF Pics.** 11 digitized pics of Alf.
- #273: Games No. 15.** Hackman, Jumpman, Escape (C)
- #274: Games No. 16.** Midway Battles, Hero! V1.0, (C)
- #275: Air Warrior, V0.8.** Flight simulator program for private practice or multiplayer aerial combat on GENie.
- #276: Disk Cataloger and Label Printer.** Shareware by Saraware.
- #277D: GNU C Compiler,** by Free Software Foundation, (C) 1988.
- #278: Atari ST Applications Programming (C).** programs from book same name.
- #279: Atari SLM804 Laser Disk.** Diabol Emulator 1.2, GDOS Boot 1.2, LCamelot font.

NOVEMBER 1988

- #280: Lambert Pics No. 4.** 18 Degas Elite pictures.
- #281: Manual Maker.** V2.25 Use GDOS fonts to produce attractive manuals.
- #282: Damonoid.** (C) Arcade game. NO MEGA.
- #283: Adventure Games.** System 5, Once A King, El Bozo's City Out of Bounds.

- #284: Desk Acc No.3.** Mouse doubler, mouse editor, address book, Double-click software's Clock, Formatter, Stuffer.
- #285D: Star Trek (AVS).**
- #286D: California Raisins (AVS).**
- #287D: Miami Vice (AVS).**
- #288, #289, #290, #291: GNU C Source Code:** Four disk set includes Make and Other Utilities, Assembler, Compiler, header files, DIFF source and a collection of documentation.

DECEMBER 1988

- #292: Lambert Pics No. 5.** Spectrum: 2kittens, blackbird, chipmunk, fox, owl; Degas Elite: drag108, dragcol, dragcovl, dragon2.
- #293: Dungeon Master Maps..** Maps and a cut'n'paste spell chart to aid you in your quest in Dungeon Master.
- #294: Kid Games No. 3 (C).** Kid Publish and Kid Shapes.
- #295 Sticker (M).** German disk labeling program with graphic images.
- #296: Stacatto.** Musical quiz game. Just listen or try and guess the song names as quickly as possible.
- #297: Amaze.** Maze Construction Set. Draw an image boundary and then solve on screen or print out your maze.
- #298: C-Source Disk No. 9.** The source code to ST Xformer V1 and V2. (The Atari XE Basic emulator).
- #299: Pascal Disk No. 5.** Disk labeling program and referencing pixels on the screen.

JAN/FEB 1989

- #300: Dual Term.** Telecommunication program by Tony Belding. Text capture or upload, xmodem, automatic dialing AND display of both VT52 and ATASCII graphics.
- #301D: LDW Power Demo.** Demo of LDW spreadsheet includes folder of VIP/LOTUS/LDW templates. DS disk.
- #302: Lambert Pics No.6.** (C) 17 Degas Elite pics (3Dship Bogart, F15 F18_3 Frtank Gablec2 Goali Hansolo, House Kingkool

Kitty Klingnon Monument Porsche Spidey2 Strohs Sun.

#303: Uniterm, Ver 2.0E. Terminal emulator for the VT102/220 and Tektronix's 4014 terminals. Includes Xmodem and KERMIT protocols. Files ARC'd. [Replaces CN #88]

#304: Electronic Jigsaw Puzzle V1.2. (C) puzzle program for Neo, Degas, and Tiny pictures (color only). Includes 14 pictures that can be divided into 25, 64, or 100 pieces.

#305 & 306: Modula2 Language. 2-disk set contains full working implementation of Modula2 language (note: Manual not included but can be obtained from author.)

#307D: Calamus Demo. (M) Demo version of newest DTP program from Europe. Includes sample documents (some ARC'd). 1Mb, DS disk.

#308D: Runaway Cat. (C) AVS disk with a PD player so you can see animation and hear music at the same time. (Note: player also works with: CN #285, 286, 287.) 1Mb, DS disk.

#309D, #310D, #311D: TEX: Text Document Processor. (M) 3-disk set contains TEX document processing language. Drivers provided for EPSON compatible 9-pin dot matrix printers only. Req monochrome, 1Mb, DS

MARCH 1989

#312: NEO/DEGAS CONTEST WINNERS. 21 award-winning pictures: tribar, dragon, midearty, city2042, cougar4, distill, dungeon1, egore2, fighter, forest, gilbert, house (shown below), millyw, nitemoon, panzer, plantfal, pyramid, sailing, shuttle, snowcat, wyane.

#313: ZOLTAR. (C) Arcade game similar to Galaxian but gives the user the opportunity of defining your own alien ships, their flight patterns and speed. Produced with STOS Basic.

#314: BULLET TRAIN. (C) Arcade game: pilot your train fast enough to avoid pursu-

GAME BOX #1 (Color). 30+ games: Aggravation, Azarian, Backgammon, Barn Yard, Black Jack, Boggle, Box the Dragon, Checkers, Daleks, Darts, Escape, Hac-Man, Hero!, Jigsaw Puzzle, Jumpster, Kid Music, Kid Notes, Kid Sketch, Kids ABC, Mastermind, Monopoly, Mr. Potato, Poker, Roulette, Scour Four, Sensori, Shanghai Demo, Slots, Stone Deluxe, Triple Yahtzee, Twixt, Wheel of Fortune.

GAME BOX #2 (Monochrome). 30+ games: Adventure, Adventure Writing System, Anduril, Ballerburg, Baseball, Bog, Breakout, Core Wars, Cribbage, Daleks, Diamond Miner, Draw Poker, Eamon Adventure Games, Eliminator, Escape, Hero, Invaders, Krabat & Krabat2, Mazemaker, Mega Maze, Megaroids, Monopool, Ogre, Puzzlepuzzle, Reversi, Runner, Shanghai, Snafu Principle, Space War, Squixx, Stocks and Bonds, Trucker. [Box includes CN #54, 80, 135, 153, 212, 213, 230, 240, 257, 269]

CLIP ART BOX #1. 240 screens of clip art

CURRENT NOTES PD BOXES

plus a variety of clip-art and picture utilities. [Includes CN #158, 159, 160, 239, 245, 246, 247, 248, 249, 250]

NEO/DEGAS PICTURE BOX #1. 185+ examples of Atari Art! Includes Neochrome painting program. [Includes CN #14, 183, 40, 41, 42, 51, 52, 65, 75, 98]

MUSIC BOX #1. 400+ songs for use with Music Studio and 30+ songs for use with Music Construction Set. PD players included. [Includes CN #60, 114, 196, 197, 198, 199, 216, 216, 237, 244]

C LANGUAGE BOX #1. 2 "C" compilers plus 8 disks w/sample "C" programs. [Includes CN #123, 277D, 33, 82, 133, 156, 171, 223, 231, 298]

ST LANGUAGE BOX #1. 8 languages: Forth-83, Forthmacs V1.1, C Compiler, ICON Language, XLISP V2, Toy Prolog, Little Smalltalk, Modula2 and Editor disk. [CN #53, 71, 123, 124, 163, 181, 224, 262, 305, 306]

PASCAL/MODULA2 BOX #1. Sample programs to help you learn these languages. [Pascal: CN #31, 49, 93, 111, 177, 299; Modula2: CN #31, 83, 92, 110, 232]

SHOW-OFF BOX #1. Balls & Boinks, Oxygen, Shiny Bubbles, Spheres, CN Movie, Steely Boink, ST-Replay, Space Probe, Cyberscape, Play It!, California Raisins, Miami Vice. (CN#78D, 90, 105, 128, 129, 134, 151, 173, 218, 286, 287) REQUIRES DS DRIVE.



CN PD Boxes include 10 disks and a plastic case to hold your disks. They are \$35 each plus \$2 S&H. Order from CN Library, 122 N. Johnson Rd, Sterling, VA 22170.

ing train while watching out for dead-end tracks and box cars blocking your way (that's what the "bullet" is for!). Produced with STOS Basic.

#315: ORBIT. (C) Arcade game similar to Breakout and Arkanoids. Includes wide variety of different "bricks" and screens. Define and save your own screens. Produced with STOS Basic.

#316: CASINO-KENO. (C) Version 1.0 faithfully simulates keno games in Nevada allowing the player to mark on a keno card up to 15 numbers out of 80. Creates and saves personal account information to disk so play can continue later. By Glenn W. Ulrich.

(C) Disk NOT PD -- withdrawn from CN Library.

#318: ASSISTANT CHEF. (C) Just the recipe program you've been looking for. Holds up to 300 recipes (42 included). Sort by recipe number, name, food group, food type, disk type, rating. Add to and edit recipes. View and/or print.

#319D: GENERATION GAP DEMO. (C or M) Demo version (10 record limit) of Generation Gap Genealogy program by Flying Pigs Software Double-sided disk..

#320: PRINT MASTER NO. 1. Includes Borders6, Borders7, Borders8, and Borders10 for PM and PM+ and a folder of PM_ART icons. Utilities allow conversion of PM to Degas and back as well as PM cataloguer program to view/print an alphabetized catalogue of any PM files.

APRIL 1989

#321: ST WRITER, VER 3.0. The latest version of ST Writer. Includes, English, Spanish, and German versions and complete docs.

#322: SUB_CAL. Sub_Cal is a calculator with some extras. It will compute arithmetic expressions, definite integrals, derivatives, or solve equations. It will also solve polynomial equations up to the third degree. A simple plotting feature is included as well.

Ordering Information

The programs on these disks are either public domain, or copyrighted but distributed freely to the public, or shareware products where the author would like an additional payment if you decide you like their products. Disk numbers with a 'D', e.g. 309D, indicate a double-sided disk. All disks are guaranteed. If you ever have a problem with a CN disk, just return it and we will gladly replace it.

Disks are \$4.00 each. Quantity discounts are available. If you order 10 or more disks, the price is \$3.80 each; 20 or more disk, \$3.60 each; 30 or more disks, \$3.40 each; 40 or more disks, \$3.20 each; and 50 or more disks, \$3.00 each. Add \$1 per every six disks or fraction thereof for shipping and handling. Order from:

CN LIBRARY, 122 N. JOHNSON RD.
STERLING, VA 22170, (703) 450-4761

MAY 1989

Revisions

#265. VANTERM 3.71. Latest release of this popular telecommunications program.

#281: MANUAL MAKER, Version 2.25. Includes on-screen preview and menu-driven interface.

#317: -- WITHDRAWN --

New Disks

#323: DATA BASE UTILITY DISK. CD Base: Simple to use Compact Disk Database. Written using GFA Basic3. Program presents your CD collection in a graphic format allowing you to view, edit, search and print lists. **Diskette Management Utility** by Archie Software. Great for anyone with more than 30 disks, this utility catalogs disks into a user-definable library then assign them a disk number. Instead of looking through tons of labels for a program, just type the name into the program and retrieve the diskette by number.

#324: ASSORTED UTILITIES DISK. Arcit Shell V1.04--ARCIT can automatically ARC a whole disk of files, including folder contents, or can unARC many ARC files each into their own folder. Uses any version of ARC or DCOPY to do the actual ARCing or unARCing. Full documentation included. A shareware program. **What Is V1.2--**identifies ARC files, ST programs, Degas, GIF, and Spectrum pics, Cyber .SEQ

files, ST Writer files, many varieties of 8-bit files, and more; 27 different kinds in all! Mouse-driven, works in any res. **Quick Inf--**This GEM- based program lets you load and save DESKTOP.INF files, edit the window and icon information, and even change your desktop without rebooting the machine. **Abzshell--**A command shell written entirely in assembler. Loaded in memory, it uses just a bit more than 6K. 17 commands, including 2 conditional ones, 5 variables. Can execute batch file at startup. Source, documentation and program included.

#325. STARNET BBS V.1.24. This version of the StarNet BBS is not in the public domain and CN hopes you will support it's author Eric Drewry. The program is configured for a single sided disk but will also work well with a hard disk. Supports word wrap, and a "doors" system.

#326: GAME DISK No. 17. Battleship-A Gem-based GFA Basic battleship game. You play against the computer, but remember, it isn't as easy as it sounds! **Clowns--**A ST version of a popular 8-bit game. It can become quite addicting. **Fun Laws--**Ever wonder where all those "Murphy" type laws came from? Now you can read all of them with their sources. Very funny reading. **Invaders--**Space Invaders for the ST! This is invaders the way it was ment to be played! **World Map--**This draws a detailed world map. Not very useful, but it is fun to watch.

CN PC LIBRARY

The disks listed below are in IBM format for use with pc-ditto on the ST or directly with any IBM or compatible PCs using 3.5" drives. Note: all disks require a DS drive.

PC-01 PROCOMM, V2.3: Terminal Emulator Program (Shareware) also MINIHST, host BBS system.

PC-02 PC-STOCK, CARDEX: PC-Stock: general purpose stock trend analysis program. CARDEX: a rotary index card file equivalent to a Rolodex.

PC-03 QEDIT: QEDIT: the Quick Editor A fast text editor, uses all available memory, allows split screens and multiple file editing.

PC-04 PC-OUTLINE, V1.05: An outlining and planning program, allows you to randomly enter any kind of info and then organize it into hierarchical structure.

PC-05 AS EASY AS: Powerful spreadsheet (1,024 rows by 256 cols) with a large set of menu command features.

PC-06 PC-DBMS, FLOW CHART: PC-DBMS: v1.2, data base programs. Flow Chart Utility and Mortgage Calculator.

PC-07 EASYBASE, BANKBOOK: EASY BASE: Data base for new users. HOME BANK BOOK: keep track of your funds.

PC-08 TIMESAVER & PFM: Timesave: calendar/appointment book. PFM: Personal File Mngmnt System to help deal with DOS

PC-09 POKER & STAR TREK: DRAW POKER, V1.0: simulates Nevada video draw poker machine. MS-TREK 1.0, Star Trek

Adventure Game.

PC-10 ZIP: The Ultimate Utility Complete file manipulation utility. Includes ARC and de-ARC and terminal program with XMO-DEM transfer.

PC-11 A.D.A. PROLOG: Version 1.90 Complete Prolog language with documentation.

PC-12 FREE WORD: Version 1.0 PC Word processor with docs, demo, and reference.

PC-13 VISIBL PASCAL: Pascal learning system, language, editor, docs. Allows simultaneous view of output and source code to help learners debug their programs.

PC-14 KIDGAMES: Alphabet, Animals, Clock Game, Hangman and Mosaic.

PC-15* FAMILY HISTORY SYSTEM. A family tracking system. Disk includes original Basic source plus compiled version, full docs, and sample files. 720K.

PC-16* PC-FILE+: Jim Button's popular database filing program. Includes Utility Disk with 250pp documentation. 720K.

PC-17 PC TUTORIAL: An educational package that covers the basics of a 1st course in computer usage and the IBM PC operating system.

PC-18 PC DOS HELP: An online Help facility for DOScommands.

PC-19* PC-WRITE: Powerful, easy-to-use word processor. Program, docs, printer drivers. 720K.

CURRENT NOTES MAGIC/SPECTRE LIBRARY

These disks contain Mac programs for use with the **SPECTRE/MAGIC SAC** Macintosh emulators. Disks are \$4.00 each. Order from CN Library, 122 N. Johnson Rd, Sterling, VA 22170. Add \$1 for every 6 disks for S&H.

Note: many of the Magic disk programs also work with the Spectre 128, but not all. Adventure-type games now **DO WORK** with version 1.9 of Spectre with the **SOUND** turned on. Pinball Construction Set disks are a real blast with **SOUND** turned on.

DESK ACCESSORIES

M8: DAS NO. 1. 3DTT Game, Art Thief, Ascii, Bagels Game, Big Ben, Calculator, CopyFile, DA Tester 1.5, Delete File, Desk Acc. Tester, DeskZap 1.2, Eject&Reset, Extras, File Hacker DA, File Tools, Font Grapper+, Font Grapper3, Hex Calculator, HP 12c, MemScan, MemWindow, MerriMac Blackjack, miniWriter, Mock-Terminal, MockWrite, Moire, MW Count, Other 3.0, Puzzle, Reader, Rubik's Cube, Sampler, Scrapbook, Scientific Calculator, SetFile 3.3, SkipFinder, TheBox, Tiler 1.5, Trails, Transfer, TrapList, Utils, Word Count, Zoom Idle.

M18: DAS NO. 2. About Popup.txt, Alarm clock, Art Grapper+, Calculator+, Choose Scrapbook+, DA File, DA Tester 1.5, Disk Labeler, DiskInfo 1.45 + SICNs, Explorer, Gone Fishin', Hex Calc, Label Maker, MemWindow, MiniWriter 1.34, Multi-Scrapbook, MW 4.5 Counter, DA, PopUp 1.0, ProCount, ReadIPrinter, Ruler, SFStartup 1.0, Skipfinder 6.1, Sleep, Stars 1.6, Stars II, Sysfonts, TeaTime, Timer.

M46: DAS NO. 3. 35 DAS: 3D Tic-Tac-Toe, A-Bus ID Poker, Abacus, Calendar, Cheap-Paint, Collapse, ConCode, Crabs2, DAFile, DAFont, Disp.Msg, Double Apple, Executive Decision, FatMouse, FixPic2.0, Flow, Fun House, Func Keys, Font, Idle, KeyMouse, KnockOut, Multi-Scrap, MW to Text, New Mini-Dos, Orig Clock, PaintDA, Poker, ProCount, Ruler, Tiler1.5, Timelogger2.11, Utilities, Wrap, WXModem, Sample It.

UTILITY DISKS

M2: TELECOM DISK NO. 1. BinHex 5.0, Free Term 1.8, FreeTerm.Doc, Kermit, PackIt III (V1.3), StuffIt 1.0, TermWorks 1.3.

M3: UTILITIES NO. 1. DES, Font Doubler, MacDump, Mini Finder, PackIt III (V1.3), Reverse Screen 1.0b1, RMover, Scan, Set File, SLICER, Version Reader 1.1, Write Stream.

M5: DISK LIBRARIAN. Disk Librarian V1.82A. Disk Librarian Doc, Short Doc. Contains listing of CN MAGIC LIBRARY. (Spectre Compatible)

M9: UTILITIES NO. 2. Bind Icons, Change Appl. Font, Convert Desk Acc., Desk Accessory Mover, File Hacker, FontDoubler, Index, Make-Screen, MicroFinder, PurgeIcons, RamAStart 1.3, REdit, ResEd, SelectPaint, Show Version, User Interface Demo.

M11: PRINT UTILITIES. Coventry-12, Disk Labeler, Fast Eddie, Font Mover, Ink, MacWrite

4.5 to Text, miniWriter, MockWrite, Pica-10, ReadMacWrite, Walla Walla-9.

M27: UTILITIES NO. 3. Browse/Shazam!, Clocks: analog & digital, Edit, FEdit 3.0, launch, lazymenu, Magic Beep 1.0, Menu Editor, microFinder, Quick Dir, Quick Print, Ram-Start2.0+, Road Atlas, ShrinkToFit, SicnEdit, SortMenu, SortMenu Code, SuperFinder4.0, TabsOut, Unpit, WayStation.

M28: RED RYDER 7.0. Red Ryder 7.0, Red's 7.0 Stuff, RR7.0 Macros, RR Docs.

M43: UTILITIES NO. 4. DiskDup+, MacSnoop 1.03, RamDisk+ 1.4, ResTools 2.01, Oasis 2.01 (HFS), Font Librarian (HFS), Switch.

GAMES

M4: GAMES NO. 1. Backgammon, Bash Big Blue, Curves, MacLuff, MacYahtzee, Maze 3D, MeltDown, Missile Command, Munch, Pepsi-Cas, Smile, Snow, Solitaire, Space Bubbles, Vax Runner II.

M6: GAMES NO. 2. Ashes, Black Box, Destroyer, HexPuzzle, Killer Kalah, MacPoly Demo, Office Attack, Point Symmetry Demo, Snake, Solitaire, Trophy List, Wall Game, Wheel.

M7: GAMES NO. 3. Ashes, Break the Bricks, Deep Ennui, Go, Mac Gunner, MacBugs, MacCommand, MacYahtzee, Wiz Fire 1.1

M15: GAMES NO. 4. Alice, Amps 3.0(B2), Bricks, Canfield 2.0, Iago, Lets Get Tanked!, MacHeads, Nim, Space Attack, Third Dimension.

M20: GAMES NO. 5. Chase'Em, Crystal Raider, Daleks, Golf MacWay, Kill File, Kill, King, King.MacWrite, On-The-Contrary, StuntCopter 1.2.

M21: GAMES NO. 6. Guess, Hacker's Contest, Hot Air Balloon, Match, Ramm 1.0, Third Dimension, Trick-Track, Utaan Attack, Zero Gravity.

M25: GAMES NO. 7. Billiards, Cross Master Demo, Flash Cards, Hangman-9.0, MacLuff, Master Guess, Safari 1.0, Venn.

M30: GAMES NO. 8. Bowl-A-Rama, Mac-Trek 1.1, Mystery Box 1.0, Shots, Star Trek Trivia Quiz, Window Blaster 1.0.

M34: GAMES NO. 9. 1000 Miles, Asteroids, Cairo ShootOut!, Donkey Doo, Duck Hunt, Pente 1.0.

M45: GAMES NO. 10. Blackjack 4.0, Gunshy 1.0, Humpback, New Social Climber, Panic, Puzzle 1.0, Star Trek Trivia Quiz, VideoPoker.

M51: GAMES NO. 11. Bouncing Balls, Fire Zone, Mac Word Hunt 2.0, Out Flank, Risk and Word Search.

M53: GAMES NO. 12. 3D Checkers 2.0, Bills Casino, BMX-The Racing Game, HeloMath, Mouse Craps.

M58: GAMES NO. 13. Klondike 3.6, Space Station Pheta, Mac Concentration, Sitting Duck, Hot Air Balloon 2.1, Think Ahead+2.0.

M60: GAMES NO. 14. Golf Solitaire, Mac Football, Euchre 2.2, Gomoku, Pyramid, Checkers, Runaround and Macpuzzle 1.0.

M19: PINBALL CONSTRUCTION SET GAMES. Pinball Construction Set Player plus 12 Games: Apple, Black Hole, Face, KalinBall,

Madonna, Minute-Mag, Patchwork Mess, Phantom, Pure-Gemme, Samurai, The Royal Pain, Wizards Lair. (Spectre Compatible)

M29: PCS GAMES NO. 2. Pinball Construction Set Player plus Games: Circus Circus, D & D, Diadora, Max, Merlin, Modern Mistress, Question, The Royal Pain, Twilight Zone, Whazit. (SPECTRE COMPATIBLE)

ADVENTURE GAMES

M17: DUNGEONS OF DOOM 4.0. Graphic adventure game.

M23: VAMPIRE CASTLE. Graphic adventure game.

M24: DEEP ANGST. Graphic adventure game. 1 Mb ST only.

M31: BLACK WIZARD. Graphic adventure game by Richard Loggins.

M36: CASTLE OF ERT. Shareware graphic adventure game.

M40: HACK. Version 1.03. Game is similar to Rogue, includes manual with full docs.

M41: RADICAL CASTLE. Graphic/text adventure game.

M63D: MOUNTAIN OF MAYHEM.

M65D: DEEP ANGST II

M66: INTRUDER.

GRAPHICS

M10: GRAPHICS NO. 1. Amy, Artisto, ball demo, Big Ben, Brooke, Bugs, Curves, Display Message, Dragon, Fighting 51, Fourth Dimension, GARF, HotSex!, Liar's Club, Living Art, Max Headroom, Moire 3.0, Nightmare, Optical Illusion, Paint Grabber, Painter's Helper #1, Pattern*, Pisces, Rotations, Saddle, The Fourth Docs, ViewPaint 1.5.

M12: MACBILLBOARD. Chipmunks, Donald & daisy, Goofy At Bat, Announcement, Babe Ruth, Carotprint, Classic illusions, Escher, Escher Hands, MacBILLBOARD (MacPaint clone), Max, Mickey and Minney, mm, Quick Tour, T-Shirt. (Spectre Compatible)

M22: GRAPHICS NO. 2. BlowUp 3.0, BlowUp Notes, CalendarMaker 2.2.1, Dynamo, Graphic, MadMenus, Math21, Rays, Simutree, Spiro, Tree, Vanlandingham.

M26: GRAPHICS NO. 3. 3D Sketch, AniRama, Bin/Graphics, Brownian Motion, Control, Fractal Contours, Fractals, Icon Collector, Julia, MakePaint, Melting Clock, Small View, ShapeArt, StarFlight, Window Demo.

M47: GRAPHICS NO. 4. Cursor Designer, EarthPlot3.0, Graphics2.0, Mondrian1.0, MotionMaker2.0, Moving Finger, Wallpaper, Zoomation.

M57: GRAPHICS NO. 5. Contains 6 graphics-oriented applications or DAS: Micro Film Reader 1.4, Bomber, Ilana II, Preview, Super Ruler 1.1, and XVT-Draw.

FONT DISKS **

M13: FONT DISK NO. 1. Akashi, AlgBlurb, Algebra, Athens, Boxie, Dover, Geneva, Hood River, ImageWriter, LED, London, Los Angeles, Luxor, Mars, Monaco, Park Ave, Pica, Ravenna, Rome, Runes, San Francisco, Seattle, Steel Brush, Ultra Bodoni.

M14: FONT DISK NO. 2. Bookman, Courier,

CURRENT NOTES MAGIC/SPECTRE LIBRARY

Coventry, Dali, Geneva, Hebrew, Manteco, Shadow Box, Sri Lanka, Times, Walla Walla, and font display 4.6 w/docs.

M16: FONT DISK NO. 3. About Lachine, Alice, Avante Garde, Berkeley, Broadway, Camelot, Cartoon, Centura, Chancery, Eon, Exeter, Fallingwater, Fantaste Key, Fantaste!, Future, Ham, Helvitica, Hollywood, Lachine, Lineal, Madrid, Pittsburg, San Quentin, Silicon Valley, Stencil, Unicol plus DAFont2.da and SysFonts.da.

M32: FONT DISK NO. 4. Canberra, Chicago, Humanistic, Music, New Dali, Palencia Application, Palo Alto, Pioneer Shadow plus F/DA sorter and Font Tester.

M35: FONT DISK NO. 5. Beehive, Beverly Hills, Boise, Chicago, Courier, DeStijl, Ham, Happy Canyon, Helvitica, Mod. Chicago, Old English, Square Serif, Sri Lanka, Worksheet.

M42: FONT DISK NO. 6. 15 new fonts: Berlin, Boston II, Courier, Dorza, Highwood, Micro-Boston, MiniBoston, New York, Palo Alto, Sparta, Stiletto, Symbol, Tatooine, Venice, Wartburg.

M44: FONT DISK NO. 7. 18 new fonts: 42nd Street, Aldous, Art Deco, Ascii, Blockbuster, Border, Clairvaux with docs, Coptic, Deep Box, Ivy League, Klingon, Las Vegas, Little Box, Madrid, Memphis, Minneapolis, Rivendell, Spokane.

M50: FONT DISK NO. 8. Alderney 9-48; Cairo 18; Cyrillic 12; Greek 10,20; Paint 18; Playbill 12,18,24; Rehovot 10,12,20,24;Runes

12,24; Washington 12; Zodiac 18.

M61: FONT DISK NO. 9. New Century 10-24, Helvetica 10-24, Columbia 9-24, Minneapolis 36, Creamy 10-24, Palatino 10-24, Detroit 24, and Zap Chancery 10-24.

M64: FONT DISK NO. 10. York, Paint, Miscpix, Icon, Cupertino, Arabic, Fallingwater, Schematic, Moscow, and Isengard.

M67: FONT DISK NO. 11. Cavanaugh, Icon2, Fletcher, Math-Greek, Toyland, Troyes, Memphis, Provo, Scan, Tombstone, Southbend, Klingon, Wall Street.

CLIP ART **

M33: CLIP ART NO. 1. AirCraft, Business, Car Logos, Cars & Trucks, Clip Art Demo, Disney, Eyeballs, Flowers, Misc, Seasons, Trees1, Trees2, ViewPaint 1.5.

M52: CLIP ART NO. 2. 27 files: Al&Jimmy, Americana, Arrows, Bigger Guys, Billboards, Borders, Cars, Cartoons, Cats, Celebrities, Egret, Famous People, Farm Animals, Good Guys, Gorilla, Hopefuls, Little Guys, MacLectric Clip Art, More Little Guys, Presidents, Rain/ Chef, Skier/Football, Skyline, Space/Race, Statues, Tennis/Running, Wine & Beer.

M55: CLIP ART NO. 3. 26 clip art docs in MacPaint format: Animals, arrows, books, business, calendar, computer, disk, files, geography, holiday, houses, icons1-6, mail, memo, misc1, misc2, money, music, office, people and symbols.

COMMERCIAL DEMOS **

M37: MAC-A-MUG PRO DEMO. Version

1.0, Create your own mug shots by combining a variety of different facial features.

M38: VIDEO WORKS PLAYER NO. 1. PD player for Video works animated screens. Includes 11 movies.

M39: DEMO DISK NO. 2. Anatomiser (learn human anatomy), DeskPaint (desk acc MacPaint clone), and SuperPaint (graphic program with both MacPaint and MacDraw features).

M54: DESIGN. Full working version of the program Design (no save feature). Includes 5 samples and full documentation.

M59D: DEMO DISK NO. 3. Demo version of Kaleidagraph and Geographics II. Double-sided disk.

M62: DEMO DISK NO. 4. Math Blaster and Blob Manager Demo.

HYPERCARD DISKS **

M48D: HYPERSTACKS NO. 1. Address, Databook, Fractal, Funy Day, Home Desk, HyperNews 1.2, HyperZoetropes, MacGallery, MacVermont #2, Notebook, Periodic Table, and ResEdit IPS. (Double-Sided)

M49D: HYPERSTACKS NO. 2. Ear, Illusions, Passing Notes, Shipstack, Silly, and US States V2. (Double-Sided) NOTE M48 and M49 require HyperDA using 64K ROM Spectre or Magic Sac.

M56D: HYPERSTACKS NO. 3. Contains only 1 hyperstack, Atkinson's 786K Clip Art Stack, with 500 pieces of clip art. Disk is Double-sided and requires HyperDA when using 64K ROM Spectre or Magic Sac.

**** Spectre 128 compatible.**

SPECTRE 128 PD Library

Note: These disks require Spectre 128 (128K ROMs) and DO NOT work with 64K ROMs unless otherwise noted.

S1: MACWRITE 5.0 DEMO (Cannot print/ save but can load and read doc files.)

S2: MACPAINT 2.0 DEMO (Cannot print/ save files but can load and view and create them.)

S3D: RED RYDER 9.4 (DS disk) This is the last shareware version to be released before it became a commercial product. One of the most powerful telecommunications programs available for the Mac. Full docs and utilities for batch downloading included.

S4D: ALDUS FREEHAND DEMO. (DS disk) A Videoworks II interactive demonstration of Freehand drawing program.

S5: GAMES #1: Banzai, Monopoly 4.0, ATC 4.0, Mines, New Daleks, Brickles 4.0

S6D: POWERPOINT DEMO (64K ROMs COMPATIBLE)(DS disk) Fully working demo version of this popular Mac program for planning, composing, and creating complete presentations. (Also works with Magic Sac).

S7: GAMES #2: Space Bubbles, Stratego, Investigator #1, Towers of Hanoi, Marienbad

S8: IMAGE STUDIO DEMO (Does not save). A photo retouching lab on the desktop, modify digitized images in 65 grey scale levels.

S9: TELECOM #1: Stuffit 1.51, Stuffit Users Guide, Freeterm 2.0, Freeterm 2.0 Documentation, TermWorks 1.3, Packet III (version 1.3)

S10D: STACKS #1: Concentration, Hyper-Gunshy, Dinosaurs, Auto-Stack, Home 1.2 (DS Disk)

S11: UTILITIES #1: MacEnvy, Benchmark, DiskTimer II, SampleIt 1.21, SampleIt Docs, Apfont 3.2, HierDA, Fever, OnCue 1.3 Demo, Screen-Dump II, Findsweel 2.0 Demo

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M16: FONT DISK NO. 3. About Lachine, Alice, Avante Garde, Berkeley, Broadway, Camelot, Cartoon, Centura, Chancery, Eon, Exeter, Fallingwater, Fantaste Key, Fantaste!, Future, Ham, Helvitica, Hollywood, Lachine, Lineal, Madrid, Pittsburg, San Quentin, Silicon Valley, Stencil, Unicol plus DAFont2.da and SysFonts.da.

M32: FONT DISK NO. 4. Canberra, Chicago, Humanistic, Music, New Dali, Palencia Application, Palo Alto, Pioneer Shadow plus F/DA sorter and Font Tester.

M35: FONT DISK NO. 5. Beehive, Beverly Hills, Boise, Chicago, Courier, DeStijl, Ham, Happy Canyon, Helvitica, Mod. Chicago, Old English, Square Serif, Sri Lanka, Worksheet.

M42: FONT DISK NO. 6. 15 new fonts: Berlin, Boston II, Courier, Dorza, Highwood, Micro-Boston, MiniBoston, New York, Palo Alto, Sparta, Stiletto, Symbol, Tatooine, Venice, Wartburg.

M44: FONT DISK NO. 7. 18 new fonts: 42nd Street, Aldous, Art Deco, Ascii, Blockbuster, Border, Clairvaux with docs, Coptic, Deep Box, Ivy League, Klingon, Las Vegas, Little Box, Madrid, Memphis, Minneapolis, Rivendell, Spokane.

M50: FONT DISK NO. 8. Alderney 9-48; Cairo 18; Cyrillic 12; Greek 10,20; Paint 18; Playbill 12,18,24; Rehovot 10,12,20,24; Runes

12,24; Washington 12; Zodiac 18.

M61: FONT DISK NO. 9. New Century 10-24, Helvetica 10-24, Columbia 9-24, Minneapolis 36, Creamy 10-24, Palatino 10-24, Detroit 24, and Zap Chancery 10-24.

M64: FONT DISK NO. 10. York, Paint, Miscpix, Icon, Cupertino, Arabic, Fallingwater, Schematic, Moscow, and Isengard.

M67: FONT DISK NO. 11. Cavanaugh, Icon2, Fletcher, Math-Greek, Toyland, Troyes, Memphis, Provo, Scan, Tombstone, Southbend, Klingon, Wall Street.

CLIP ART **

M33: CLIP ART NO. 1. AirCraft, Business, Car Logos, Cars & Trucks, Clip Art Demo, Disney, Eyeballs, Flowers, Misc, Seasons, Trees1, Trees2, ViewPaint 1.5.

M52: CLIP ART NO. 2. 27 files: Al&Jimmy, Americana, Arrows, Bigger Guys, Billboards, Borders, Cars, Cartoons, Cats, Celebrities, Egret, Famous People, Farm Animals, Good Guys, Gorilla, Hopefuls, Little Guys, MacLectric Clip Art, More Little Guys, Presidents, Rain/ Chef, Skier/Football, Skylines, Space/Race, Statues, Tennis/Running, Wine & Beer.

M55: CLIP ART NO. 3. 26 clip art docs in MacPaint format: Animals, arrows, books, business, calendar, computer, disk, files, geography, holiday, houses, icons1-6, mail, memo, misc1, misc2, money, music, office, people and symbols.

COMMERCIAL DEMOS **

M37: MAC-A-MUG PRO DEMO. Version

1.0. Create your own mug shots by combining a variety of different facial features.

M38: VIDEO WORKS PLAYER NO. 1. PD player for Video works animated screens. Includes 11 movies.

M39: DEMO DISK NO. 2. Anatomiser (learn human anatomy), DeskPaint (desk acc MacPaint clone), and SuperPaint (graphic program with both MacPaint and MacDraw features).

M54: DESIGN. Full working version of the program Design (no save feature). Includes 5 samples and full documentation.

M59D: DEMO DISK NO. 3. Demo version of Kaleidagraph and Geographics II. Double-sided disk.

M62: DEMO DISK NO. 4. Math Blaster and Blob Manager Demo.

HYPERCARD DISKS **

M48D: HYPERSTACKS NO. 1. Address, Databook, Fractal, Funy Day, Home Desk, HyperNews 1.2, HyperZoetropes, MacGallery, MacVermont #2, Notebook, Periodic Table, and ResEdit IPS. (Double-Sided)

M49D: HYPERSTACKS NO. 2. Ear, Illusions, Passing Notes, Shipstack, Silly, and US States V2. (Double-Sided) NOTE M48 and M49 require HyperDA using 64K ROM Spectre or Magic Sac.

M56D: HYPERSTACKS NO. 3. Contains only 1 hyperstack, Atkinson's 786K Clip Art Stack, with 500 pieces of clip art. Disk is Double-sided and requires HyperDA when using 64K ROM Spectre or Magic Sac.

**** Spectre 128 compatible.**

SPECTRE 128 PD Library

Note: These disks require Spectre 128 (128K ROMs) and DO NOT work with 64K ROMs unless otherwise noted.

S1: MACWRITE 5.0 DEMO (Cannot print/ save but can load and read doc files.)

S2: MACPAINT 2.0 DEMO (Cannot print/ save files but can load and view and create them.)

S3D: RED RYDER 9.4 (DS disk) This is the last shareware version to be released before it became a commercial product. One of the most powerful telecommunications programs available for the Mac. Full docs and utilities for batch downloading included.

S4D: ALDUS FREEHAND DEMO. (DS disk) A Videoworks II interactive demonstration of Freehand drawing program.

S5: GAMES #1: Banzai, Monopoly 4.0, ATC 4.0, Mines, New Daleks, Brickles 4.0

S6D: POWERPOINT DEMO (64K ROMs COMPATIBLE)(DS disk) Fully working demo version of this popular Mac program for planning, composing, and creating complete presentations. (Also works with Magic Sac).

S7: GAMES #2: Space Bubbles, Stratego, Investigator #1, Towers of Hanoi, Marienbad

S8: IMAGE STUDIO DEMO (Does not save). A photo retouching lab on the desktop, modify digitized images in 65 grey scale levels.

S9: TELECOM #1: Stuffit 1.5.1, Stuffit Users Guide, Freeterm 2.0, Freeterm 2.0 Documentation, TermWorks 1.3, Packet III (version 1.3)

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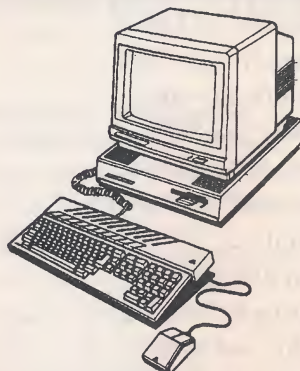
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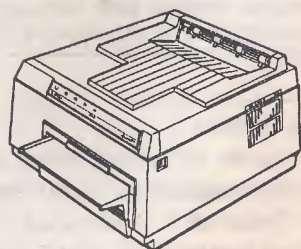
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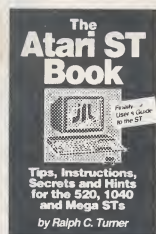
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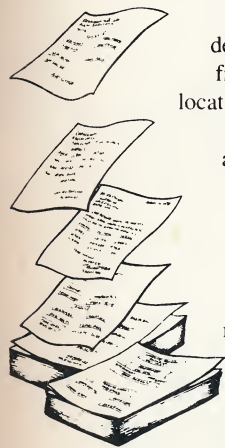
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System Requirements:

- ✓ Atari 520, 1040, or MEGA ST with one floppy drive and 480K free RAM.



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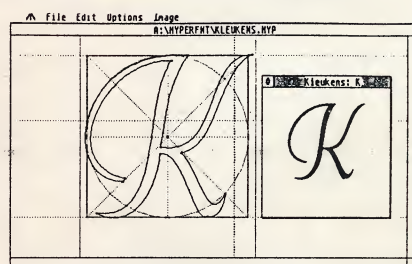
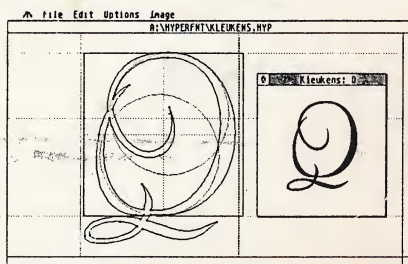
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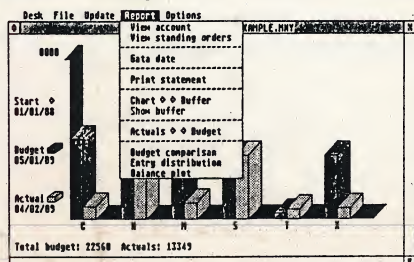
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